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VOLUME FOURTEEN

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J. P. THORNE, M. D., AND J. V. STEVENS, M. D.
EDITORS

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PRACTICAL ELECTRO-THERAPEUTICS

THE X-RAY IN SKIN DISEASES

By THOMAS F. JOHNSON, M. D., Perry, Iowa.

Ever since Esculapius offended Pluto and Jupiter killed Esculapius with a thunderbolt to the time Socrates drank the cup of poison, 339 B. C. (in April or June), down to December, 1895, when Prof. Wilhelm Konrad Roentgen observed a screen of barium-platina cyanide to fluoresce brilliantly from an excited or energized tube (and for five years later) the medical profession was unable to cure eczema. In all these centuries various methods of torture were added to the disease itself. Through the medium of the discovery of the X-ray, and the logical use thereof, it surpasses all other remedies and there is but this single one up to the present moment. Hence if you are progressive you will discard all others, and cling to this modern one until a rival appears that is superior to and dispels the X-ray.

No less authorities than Beard, Butler, Bigelow, Burdick, Goelet, Grubee, Herdman, Hayes, Jacobi, Henrietta Johnson, Kellogg, Liebig, Massey, Morton, Newman, Neiswanger, Parsons, Rube, Robinson, Ranney, Tipton, and a score of others assure us a permanent cure from the galvanic current, but, in many cases it requires weeks, and even months, to master the affliction. Nevertheless I mention its success, as many of my sisters and brethren, in the profession, have wall plates, who do not possess a coil, or a static machine. Should you have either of the latter, then believe me when I inform you that if you possess the proper knowledge of electrophysics, also of electro-therapeutics, you are competent to cure eczema with the one single indicated remedy—X-rays whether generated from a coil energized from the commercial current, or the glass or mica plate static machine. Recollect if you do not possess "the know how and know you know," go and take a course at some good school of electro-therapeutics and remain until you conquer it; or take a correspondence course either of Dr. Homer Clark Bennett, Lima, Ohio, or International Correspondence School, Scranton, Pa. Believing you know, won't do. You must possess the skill. I have known parties to run a good static X-ray machine from two weeks up to five months, without ever being able to charge the machine; yet, they were faking treatments all the time, duping the public, defaming electricity. One had been turning his machine backwards, another had eighteen to twenty pounds of calcium chloride (crude) inside the case, and a nice little charger, Wimshurst, besides. Such conditions are deplorable and hold back the scientific use of electricity.

Now, having returned from your personal instruction, or completed your home correspondence, I hope you are competent for first-class, up-to-date work. By the proper use of electricity life may be prolonged, disease cured.

When I started out I only intended to take up eczema, but as the X-ray is the remedy par excellence in numerous other skin diseases, as well as tuberculosis and malignant, hopeless, unoperable cases, I will mention a half dozen, but recollect I place most stress upon eczema.

DIFFERENTIAL DIAGNOSIS

ECZEMA.	ERYSIPELAS.
General—No such systemic disturbance as in erysipelas.	General—Marked constitutional disturbance, fever, etc.
Skin—Redness not shiny; varying in degree; does not extend so rapidly.	Skin—Redness shiny, glossy, extending rapidly from a central point.
Sensation—Itching.	Sensation—Burning and stinging.
Area—Diffused.	Area—More or less sharply defined.
Duration—Always tends to chronicity.	Duration—Acute and self-limited; never chronic.
Contagion—Not contagious.	Contagion—Highly infectious.
Bacteria—None.	Bacteria—A specific germ.

ECZEMA.	PSORIASIS.
Area—Not sharply defined.	Area—Very sharply defined.
Sensation—Very itchy.	Sensation—Generally not itchy.
Crusts—Crusts and scales, dirty white, straw colored, yellow or greenish.	Crusts—Scales pearly white; glistening; never any crusting.
Moist—Essentially a moist disease.	Beneath the scale, pin-points of bleeding.
Duration—Acute or chronic.	Dry—Always dry.
Surface—Flexor surfaces preferred.	Duration—Always chronic.
General—Systemic symptoms.	Surface—Extensor surfaces preferred.
	General—Often no systemic.

ECZEMA.	SCABIES.
Leisions—Multiform.	Lesions—Multiform.
Extent—No such limitations as in seabies.	Extent—Generally limited.
Not contagious.	Contagious.
Not parasitic.	Porasitic.

ECZEMA OF BEARD.	SYCOSIS.	TINEA BARBAE.
Inflammation. Superficial.	Inflammation, deep seated.	Inflammation, deep seated.
Very itchy.	Very sore and aching.	Itchy.
Surface—Diffused.	Surface—More or less defined, the whole area being hard, swollen and indurated enmassee.	Surface—Many foci each more or less defined. The whole surface nodular.
Pustules—Without reference to hair.	Pustules—Each one pierced by a hair.	Pustules—Some only pierced by hair.
Hairs not affected.	Hairs loosened over affected area.	Hairs broken off and some loose in follicle.
Extent—Tends to extend to the non-bearded portion of the face.	Extent—Limited to the bearded portion.	Alopecia—It may produce it.
Alopecia—It does not produce it.	Alopecia—It may produce it.	Parasitic.
Not Parasitic.	Not parasitic.	Very contagious.
Not contagious.	Not contagious.	

ECZEMA OF PALMS.	PSORIASIS OF PALMS.	SYPHILIS OF PALMS.
Patches diffuse.	Sharply defined.	Sharply defined.
Itchy.	Not.	Not.
Heals from periphery.	Heals from center.	Heals in center and extends on the margin.
May occur only on the palms.	Never alone on the palms.	May occur alone.
Surface apt to crack deeply.	Not liable.	Is liable but less so than eczema.
Tends to extend on to the dorsum.	Not.	Not.
No history of constitutional disease.	None.	Generally history or other evidence.

In eczema it does not matter about symptomatology, whether it be acute or chronic, erythematous, papular, vesicular or pustular, burning, itching, moist or dry. Neither are you to pay any attention to individuals, young nor old, race nor sex, asthmatic, dyspeptics, drunkards, cachetic, lank, lean nor plethoric nor to location except where there is a growth of hair, either upon the head, eye-brows, eye-lashes, as the X-ray makes the hair come out.

Be sure of your diagnosis, and your prognosis will always be good because it is a sure cure. Chronic cases require more time than acute cases. Eczema at mucous outlets are more obstinate than those located elsewhere.

Treatment: We pay no respect to diet, or local afflictions, use no antipruritic lotion, neither plates, nor ointments, pastes of salicylic acid, oxide of zinc, amylum, vaseline, nor oil of white birch, tar nor ichthyol. No constitutional or internal medication is needed. The list of remedies recommended by J. R. Kippax, M. D., in diseases of the skin are only the modest number of sixty-five and all of them fail in many cases. Millspaugh uses equally as many. Eczema is more intractable to ordinary treatment than many of the more serious skin diseases. Kippax figures it constitutes about forty-five per cent. of

the entire number of skin diseases; hence, if it is as prevalent all over the United States as it is in the windy, sooty, smoky city, and is so doubly treacherous to all the best and most noted dermatologists in the world(as they require from one to three years to effect a cure) there is a great field for X-ray treatment. I have known a number of the specialists on this continent to utterly fail after nine years of strict heroic treatment, compelling their victims to diet, exercise, bathe and undergo orificial operations, use local applications or blue stone, solutions up to unguentum, hydrargyrum, all to no avail. Others who have taken medicine from the infinitesimal homeopathic pellet up to the heroic dose of Fowler's solution. Aye! Even the respected eclectic's bitters, black draught. With this array of stubborn facts before us what shall we do? Fly to electricity as a more favorable means of cure, and by far more agreeable. There is therefore no lack of information of the effects of electricity in its treatment.

Acne—In this disease the X-ray can be considered as a specific; in over 80 cases I have no failures to record. It is marvelous the way acne will yield to the proper applications of X-ray. Just as good results in indurated acne of ill health as we do in acne of healthy children.

Eczema and psoriasis may recur several times if the patient is not cautioned against aniline dyed goods, or cheap alkali soaps, and garments of wood-wool: avoid all irritants such as carbolized salve, carbolic soap, unguentum hydrargyrum resinol, etc. The first treatment is evident, but, be guarded, the case will not bear the same dose again without a hazard. It will cause a destructive burn if you crowd too much.

Lupus Vulgaris. Burdick reports 60 cases cured with only eight failures. He states that in uncomplicated cases the X-ray is a specific.

Tinea and sycosis are also considered by the same authority as diseases where X-ray is a specific, many cases yielding to the ray that have resisted all other methods of treatment. Tubercular conditions are frequently cured by the X-ray.

Rosacea is successfully treated and the patient is truly grateful, beside remunerating you. I had one patient, a conductor, who turned over a thoroughbred to my wife for curing him while I was making visits in the country. I have a standing offer of two hundred and seventy-five dollars for the steed any day I choose to accept it.

There are many other afflictions where you can depend upon X-ray, to say nothing of the usefulness in locating foreign substances in the human body, such as needles bullets, pins, tacks, false teeth, safety pins, coins, etc. In fractures and dislocations, if many of our big surgeons would avail themselves of the use of X-ray, they would prevent many cases of criminal malpractice.

It is a misdemeanor for even a country doctor to probe for a bullet when there is an X-ray accessible. I beg pardon for using the phrase "country doctor." I never did like the appellation, neither do I think much of the nomenclature: it must to have originated from such a snob as Dr. William Osler, no other with a brain pan as large as that of a ant could have been so brutal. I wish our medical journals would relegate the former, with the "old doctor" to the waste basket. I honor both for their honesty and true worth and nobility.

I will now refer to a half dozen diseases that electricity will cure more speedily, safely, surely, permanently, than all other remedies ever discovered or proven, or all the noted surgeons thrown in the list, also, I am friendly to surgeons, but I do not like to have them think and act as if they were practitioners, physicians or healers. Those who cut, mutilate and maim truly do not belong to our honored profession. Many of those styling themselves surgeons

could not earn a decent livilihood practising medicine; any ordinary person can handle a knife, even a butcher.

When fifty thousand educated physicians in the United States daily use electricity, does it seem possible that number are to be termed electrical quacks? Brother surgeons, recollect that electricity can absorb a clot within the brain where you dare not explore—yes, it can control a hemorrhage in cases where you cannot tie an artery, or ligate a vein or use a styptic upon a capillary. It can penetrate and take up by absorption a growth, or a tumor, without an incision, without the loss of a drop of vital fluid.

THE TECHNIQUE FOR TREATING ECZEMA.

First, cleanse the part to be rayed as thoroughly as you would a case for an abdominal operation, then put on an armor of tin, or lead foil, six to ten thickness, all over the surrounding healthy tissue. Now place your low tube ten inches from the parts you expect to treat therapeutically, continue the seance for ten minutes each time; every second day for two or three weeks, after that twice a week until a cure is affected. Never cease to observe as to whether you have a dermatitis, if so rest your patient until all trace has disappeared; if this happens it is usually the end of the eczema. The Bible teaches us that God is omnipresent. Believe this in reference to a dermatitis when treating with X-rays. Imponderabilla is classified as a remedy in our materia medica, but, recollect it is the one exceptional remedy that will not tolerate a gradual increase in dose: as arsenic, strychnine, morphine, etc. Every time you ray a person, the more likely they are to become sensitive ,and pick up a dermatitis, or a true X-ray burn.

From the infinite space of a sphere unbound,
Where the arches of a universe span:
Where the elements clash and the storm cloud roll,
I come as the servant of man.
With the speed of the wind I answer his call;
I bring him a message without delay;
He can hear the sound of a well known voice
Though a hundred miles away.

Weary and worn, with lagging feet
The traveler who journeys afar
Would faint by the way ere he reached his home,
Were it not for my swift-wheeled car.
When dread disease racks the human form,
And baffles the surgeon's skill,
I send my rays through tissue and flesh,
And he uses his knife at will.

—Renice Radcliffe.

FAVORITE PRESCRIPTIONS

ALCOHOLIC GASTRITIS.

By Dr. C. J. Lewis.

My favorite liniment for external use the relief of pain:

℞

Gum camphor .....ʒj
Oil gaultheria .....ʒss
Olive oil .....℥ij

M. Sig. Apply with hand every three hours. Heat the olive oil and camphor until the camphor is dissolved and when cool put in the oil of gaultheria.

DIARRHOEA.

By Dr. J. A. Burnett.

℞

Bismuth subnitrate .....ʒiv
Pulv. nutmeg .....
Powdered chalk a a .....ʒij
Zinc sulphocarbolate ....gr. xij
Syr. ginger .....℥iij

M. Sig. Dose one teaspoonful.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

All along the eventful history of medicine, bloodletting asserted its claims for the allevation of disease. Its use began with Hippocrates, and was continued by the Greeks and was early adopted by the Arabians. Holonius, in his day, says physicians bled in the hands; others bled in the ankle, most of them preferred to open a vein in the upper extremities, because they thought it would be less debilitating. Hildomus thought not more than six or eight ounces should be drawn. The great English surgeons, and physicians were swept along by the current of medical opinion, that bloodletting was the remedy par excellence.

But local and general bloodletting were employed by the followers of Hippocrates for centuries. Thompson is said to have been the first to employ leeches for the local abstraction of blood. Discovered by accident from seeing the leech adhere to the lips of animals, while drinking water, fill themselves with blood, led to their employment for the local abstraction of blood.

Cullen, in his work, says: "Nothing is more evident than that bloodletting is the most powerful means of diminishing the activity of the whole body." This distinguished physician lays down nine modifying rules for the employment of venesection in fevers. He says:

"First: Nature of prevailing epidemic.

Second: Nature of remote cause.

Third: Season, climate, where the disease prevails.

Fourth: Degree of phlogistic diathesis present.

Fifth: Period of disease.

Sixth: Age, vigor, and plethora of patient.

Seventh: Former disease, habits of bloodletting.

Eighth: Appearance of the blood drawn.

Ninth: Effects of bloodletting already produced.

These rules were formulated over one hundred years ago. The rapid change of views regarding the etiology of disease must surely effect the great system of theraputics. When we take a retrospective view of the supposed causes of our ills, may we not ask, are we nearer the satisfactory solution of this great question than we were in the earlier days of medicine? How many towers, now in ruins, were erected in celebration of these theories so universally acepted, which are now being erected on micro-organisms, the unseen messengers of disease and death? Years have past since Koch proclaimed to the world his discovery of the tubercle bacillus. We have classified fourteen varieties of the "cleft fungi," and like a great family they are subdivided into many species. The theory now is, that nearly every disease is due to the presence of micro-organisms; that germs are not the result of disease, but are the cause. May it not be that we are always infected with them, and in diseased conditions they develop—a menace to lives as in pneumonia? We take in bacteria constantly, but our vitality renders them harmless. Their vitality becomes active when we are ill. This assertion may be unscientific, but I believe it all the same. If we accept the theory, then our therapeutics must be based entirely upon antitoxins and such agents as will remove the cause of disease, or that will destroy the bugs. Why burden our pharmacopoea with a long list of vegetable, mineral, and animal agents, unless they are such as will remove the cause of disease. And to be philosophic, all treatment ought, primarily, to be purely preventive.

Prof. Yeo, of Kings College, London, speaks of the short time devoted to the study of the physiological effects of 250

different vegetables, 140 mineral, and 25 animal drugs, and 500 of these compounded. What an endless variety, and enormous quantity of drugs we have, and if we are to be destroyed by microbes, an endless number of things might as well be dispensed with as useless. Then the number is being multiplied constantly. If a physician had nothing else to do, he couldn't possibly keep up "with the new medicine."

It will be remembered by those who have read the "Bonnie Brier Bush," that Doctor McClure said: "I ha'ed but leetle time to read, and nae time to travel; and I couldna' keep up wi' the new medicine."

We have advanced out of sight, ever since the writer began the practice of medicine,—now forty-two years ago. We had no thermometers then, no eligible compounds, as at this day, no capsules, very few pills that were sugar-coated, and no gelatin coated ones, no serum, no bovine virus as now, but took crusts from one arm, and put it into another, no compressed tablets, no atomizers, no fountain syringes, but generally used the piston syringe, no hypodermic syringe. We knew nothing, or very little about sepsis and antisepsis. In surgery, if a leg or arm were amputated, the eyes were skinned to see if there was laudable pus, and healthy granulations. Now, the sight of pus after a surgical operation is a disgrace to the surgeon. Our medicinal agents fifty years ago were crude and nauseous. We had quinine all right, but it was the straight sulphate. We had no combinations, or modifications of it, as we have now. I never have forgotten when I was a boy how I had to swallow a tablespoonful of cream of tartar and jalap. I can almost taste the nasty, gritty stuff yet. Then, if we complained of belly ache, we had to take the vilest vermifuge imaginable. It had delightful smelling and tasting wormseed all right, with castor oil. When we boys had to gulp that vile stuff down, we always provided ourselves with a sour cucumber pickle, to cut the taste out. The present day sick are blest with palatable medicines, concentrations, pleasant elixirs, and everything else good.

When I was a young man, every family kept a box of liver pills in the house, and they were taken too. We never heard of such a thing as appendicitis, in those days, because we didn't have it. Everybody pursued some active avocation, and didn't spend their lives in counting rooms, at typewriters, or as stenographers, nor behind counters measuring tape. Hewers of wood and drawers of water don't have appendicitis now, because they do hard work and eat plain, wholesome food.

I remember when we used to use Cook's pills and compound cathartic pills, and I have taken many a dose of them. When you took a big dose of compound cathartic pills, talk about intestinal warfare, you surely had it when they got down to business. As to patent pills, every household had either McLane's, Wright's Ayer's, or Jaynes' pills on hand; but druggists tell me they don't sell one box of patent pills now, where they sold a hundred, forty years ago. The advance in pharmaceuticals has been such as to supplant the old fashioned remedies, whether officinal or patent. The old patent bitters have disappeared in the household. New remedies are used.

When I was reading medicine, my father kept a large stock of medicines, and I served an apprenticeship in making pills. We made two grain quinine pills, the mass being enough acacia to agglutinate, a little pulverized charcoal to hide the color of the quinine, and when made, by rolling them between thumb and fingers, they were put in a bix with plenty of powdered licorice root to both dry them and disguise the taste. They were given for chills and fever. Five were given four hours before chill time. I have made thousands of them and became quite expert in the

art. They surely do the work. Five were prescribed every day, for five days consecutively, and then five every seventh day, for several weeks. Twenty-five such quinine pills brought a dollar during the war, and I have known twenty to thirty boxes sold in one day. But quinine cost $3.50 to $4.50 per ounce then.

But now, the old decoctions, infusions, and pills have ben relegated to oblivion. The active principles have been isolated in alkaloids and resinoids, and its no great hardship any more to take medicine. The advantages we now enjoy we owe to scientific pharmacy. Physicians who have witnessed this wonderful progress and improvement, stand amazed. Pharmacy has not only brought us concentrations of palatable principles, but the practice of medicine has changed accordingly. We no longer starve our fever patients, nor forbid cold water. The "sugar" doctors can't charge us with drugging our patients with nasty medicines. We have progressed in the last twenty years with great strides.

(To be continued)

DYSMENORRHEA

By R. J. SMITH, M. D., Logan, Utah

Dysmenorrhea or menstrual pain is not a disease entity but may be found in the symptomatology of many disorders of the pelvic organs. Text books give very little light on the therapeutics of this very common affection. It is a subject which should demand the earnest study of every practician since it has been estimated that about 70 per cent. of all women suffer pain at the menstrual period.

Text books describe many forms of dysmenorrhea, but as it is seldom possible to differentiate between these varieties, they may well be ignored and the main fact of spasm should receive the attention its importance demands. The more this affection is studied, the more certain it is that spasm as a symptom predominates; in fact, there is but one dysmenorrhea and that is spasmodic. The pain is associated with many conditions. It may be functional, the local expression of a general condition, or due to pathological changes.

The most frequent cause of pain is malformation of the cervix, os unduly narrow and long, with stenosis. Dilation here is insufficient. The use of the stem pessary for months assists restoration to normal. The infantile uterus is developed, enlarged and subinvoluted uteri are reduced in size. All inflammatory conditions about the pelvic organs must be excluded before resorting to its use. Antisepsis and care are as requisite in the introduction of the stem as in any other operation. An anesthetic is usually necessary, as the os must be dilated.

Retrodisplacements are a prolific cause of pain. Medical treatment, local and internal, must usually be supplemented by reposition by use of pessaries, massage or operation. It is a recognized fact that many cases of displacement do not suffer from painful menstruation. Some other factor may develop pain, as exposure, etc., and then dysmenorrhea is superimposed on the displacement.

In many cases so-called idiopathic, an anatomical lesion, is hard to find. In these, it will be found that there is a general cause for the local symptom, or a small fibroid may be present in the submucous tissue: there may be a hypersensitive condition of the spinal ganglia in the lumbar region, determined by pressure along the spine or by the faradic current. Constipation, autotaxemia, anemia and chlorosis, arthritic diathesis, etc., must receive attention be-

fore deciding upon surgical interference.

Operation in cases of dysmenorrhea is demanded in only a small per cent. of cases, as endometritis, fibroids, tubal or other pelvic inflammation. Displacements are corrected by pessaries assisted very materially by indicated remedies. In fact, even in operative cases, it is necessary to treat the patient before and after operation by medicines, either locally or internally or both, if permanent benefit is to result. Curettage is indicated in possibly endometritis; in inflammatory pelvic conditions it is certainly contraindicated. It is useless in imperfectly developed uterus and ovaries.

In the treatment of this painful affection, the underlying element of all dysmenorrheas, spasm, must be recognized.

In pain due to uterine irritability, especially if asociated with profuse flow and sensation of weight in the back and lower abdominal region, macrotin is the indicated remedy.

In ovarian irritability, the flow too scant or too profuse, and dark and clotted, anemonin is uniformly successful in relieving the pain. It is of great benefit in sudden suppression of the menses due to cold, and aconitine amorphous will assist its action here. It will be found most useful in persons who are nervous and depressed.

Gelseminine may be added to either remedy for its antispasmodic effect on the hypogastric plexus. It allays nervous excitement. It is indicated in restlessness, the patient has flushed face, bright eyes, contracted pupils.

Hyoscyamine will overcome the cervical spasm, and is usually necessary during the attack. These remedies should be given in small oft-repeated doses to effect, either physiological or remedial.

The uterine sedative devised by Dr. Abbott has proved of great service in the class of cases resulting from exposure during the period. It acts quickly and efficiently in all spasmodic cases, two or even three tablets being given every hour or two with hot drinks This combination may be given several days before the period is due and replaced during the intermenstrual period by the uterine tonic, formula devised by Dr. Buckley. These two combinations should be continued for months.

Where the muscosa, vaginal and uterine is "weepy," hydrastin and viburnin are curative. In this condition there is a constant discharge varying from a thin watery fluid to a thick glairy secretion often tinged yellow. Menstruation is usually too free. Local treatment may be necessary. These remedies should be given in the intermenstrual period with the indicated remedies for pain.

If the uterine is heavy, flabby, subinvoluted, with pale relaxed tissues, endometrium thick, with leucorrheal discharge, patient complaining of backache, pain in occiput or vertex, lilium tigrinum (tigerlily) and mangifera indica are recommended by the Eclectics. I have used these remedies in three cases with decided benefit. Curettage is usually indicated.

Atropine is indicated for the spasm if the skin is pale, with chills or chilliness, flow scant and dark and bad smelling. The pain comes on before the flow and continues until the flow is established. There is usually a sensation of weight for a day or two preceding the flow.

In some cases of painful and prolonged menstruation without demonstrable lesion, styptol is reported by Jacoby as curative. It acts as a sedative and hemostatic. The dose is grs. 1½ three or four times daily. The remedy should be given several days before the expected flow. Anemia and constipation must be relieved between periods.

In rheumatic cases, with high urinary acidity, as-phen, diplosal, or some salicylate derivative gives remarkable results.

Cannabin tannate has proved as beneficial as any one remedy for the pain and

associated nervousness. It should be given in large doses, two to five grains in pill or tablet three times daily after meals, for seven days before the expected flow. It acts as a sedative to the mucous membrane.

English physicians prescribe guaiacum in ten grain doses three times daily in milk during the intermenstrual period.

Ovarian extract has done good in anemic girls when combined with iron and arsenic during the intermenstrual period. The pelvic organs are usually illdeveloped and immature. A five grain tablet may be given twice daily after meals. Nausea is sometimes complained of.

If the pain is severe, the patient is usually forced to go to bed. Heat in these cases may be applied and prove beneficial. Hot sitz baths applied to the pelvis only will relieve. The prolonged vaginal douche is grateful to most patients. A sedative liniment well rubbed in over back and lower abdominal regions and heat applied gives relief where there is tenderness on pressure.

During the intermenstrual period, all those measures directed to the upbuilding of the patient must be employed. Outdoor exercise, walking, deepbreathing, regular habits, correction of constipation, etc., are all important aids. The free drinking of water should be encouraged. Parents should be advised of the care necessary during the period, to protect from cold and overfatigue, as many girls develop dysmenorrhea from exposure during the memstrual period.

QUACKERY IN THE PROFESSION

By J. L. WOLFE, M. D. Cedar Falls, Iowa

This is certainly the question of the hour with the medical profession. The quacks who are the lineal descendants an Ananias and Sapphira, do not hesitate to make the most extravagant promises, and by their smooth and honeyed words succeed in extracting the hard-earned money from the pockets of their victims. In this manner they are enabled to dress well, to live high, and to lord it over those whose talents and energies are directed in honest as well as honorable channels. One thing there is for which we are truly thankful, and that is that the majority of physicians are honorable, upright men whose motives cannot be impugned by any one. They are honest in all respects, in both word and deed, and if they do not parade in purple and fine linen, they have something better and more spotless in their hard-earned reputation for honesty and decency. The quack is a moral leper and is a blot upon civilization; and we are glad to say that he may be eradicated from the body social which he for so many years, aye centuries, has polluted by his presence and methods.

We do not here propose to descant upon the barrenness and turpitude of quackery, nor call attention to the vain empty words which have been directed against it. This is ancient history. What we propose to discuss are the ways and means which should be adopted for the successful suppression of quacks and quackery. To begin with, the duty devolves upon the members of regular medical profession, and they must resort to legal measures to accomplish this most desirable end. The great trouble is the great hesitation manifestd by the medical profession, each member of which hesitates to take the initiative. In St. Louis the St. Louis Medical Society has endeavored to initiate a movement by an attempt to prevent the advertising of quacks in the daily newspapers. In one case which was brought up to serve as a precedent, the society obtained a decision, but it is not final as an appeal has been taken. This is certainly a be-

ginning, and may infuse some confidence in others. There is no doubt in the least that the true solution of the whole question lies in the enactment of laws, and under our present system of government it is to the legislatures that we must appeal. Being composed in the majority of members elected in and representing the rural districts chiefly, it naturaly devolves upon oud physicians whose practice is extra-urban, and it is particularly in this case that the physicians exercise a great influence, and it is equally true that it is they who suffer the most from the inroads of quacks both urban and peripatetic. It is time and the moment looks propitious for all of us to gird on our armor and prepare to do battle for the suppression of quackery, both open and illicit. We cannot afford to be indifferent and sit quietly down while all the world is looking on with surprise and all our friends are urging us on to active opposition and effective work directed to the suppression of that festering spot on modern civilization, and that threatening wrong to the whole comunity, and actual danger to the welfare of us all.

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ELECTRO-THERAPEUTICS

By WILLIAM R. D. BLACKWOOD, M. D., Philadelphia, Pa.

Continued from Page 433 December Recorder)

Although these short papers are supposed to be entirely on the use of electricity in medicine and surgery, at intervals I propose to jump aside and tell something about my happenings during the long years spent in many lands amongst many people, some of which may be interesting to my readers. This time I will tell how I had scarlet fever. I can perfectly recollect being carried down to the breakers and ducked into the sea when I was but a few months over four years of age, and not long after that the family had lots of trouble through this scourge, one of my sisters died through probably pulmonary oedema, the rash not coming out. Dr. Nesham was a professor of the Royal College of Surgeons, and a great authority then, but he didn't know. He kept us in a hermetically sealed room at a torrid zone temperature, wrapped to the chin in blankets, filled us with hot drinks, I think chammomile tea, and nary a drop of cool to "squench" our thirst as the darkies say. My mother or a servant watched us every second, but my parent being called to dinner about six, got the girl to bring up a large pitcher of cool water for the wash-basin, as we had no running hot and cold water then as my folks have now in all bedrooms. The girl was warned to watch me closely, but the door bell ringing she took chances and went down to answer it—and I likewise took my chance, thank the Lord. I got up and went for that great big pitcher, on tip-toes, drank it all as I then felt, about two gallons, but getting weak I let it go and down came the whole caboodle on the floor. I drifted almost blindly toward the bed, which I did not reach before down I went on the carpet. Up came all hands to learn what made the crash, and when they found out, there was a riot call as I at that time thought for the doctor, the firemen, the police, the board of health, (there was no such rubbish then), the undertaker, but not for the preacher, my dad being one himself. Fortunately the good doctor was elsewhere engaged so he did not get at me for two hours, and long before that I was as red as a boiled lobster and in a profuse perspiration due to the cold water. It saved my life, otherwise you would not be worried with my lugubrations in the great and good "Recorder." After graduating in medicine I wrote to the doctor and told him how we gave ice-water to thirsty people when sick or

well, and he was horrified as was my uncle after whom one of my names goes —the late Sir Robert Little, also of the same Royal College of old fogies. They never were converted, and both are dead many years ago, God rest and forgive them for their bigotry; they didn't know better then, maybe they do now. I have treated many hundred cases of scarlatina with not a solitary death either directly or indirectly due to this disease, and some day I will give my plan of treatment.

Now let me electrify you a little. I have alluded to gleet, near the disordered place comes a bad trouble for men—prostatic enlargement, and this is well managed by galvanism. With an insulated bougie send from one to three milliamperes through the prostatic urethea the negative internally and the positive either on the perineum or in the rectum, the latter being the better by clasping the gland between the poles. The sittings (or standings,) should be daily if possible, and twice daily if you can get the man to come—close applications are the sine qua non here. I give with this plan, about ten grains of sodium benzoate in camphor water, or in mucilage of acacia at night, and if the patient can use a soft catheter properly let him do so instead of straining, as they are apt to do if the flow does not start quickly. If he has much pain, I like liquor sedans in moderate doses two or three times daily. I think the electricity helps any cystitis which may be coincident with the enlarged gland, as frequently happens. About sixty per cent. of all my cases were cured thus except in old men too far gone for other than relief. Castration is no good.

(To be continued.)

GLEANED FROM PRACTICE

By ELI G. JONES, M. D.. Burlington, N. J.

A stubborn case of rheumatism settled in the feet that had resisted the action of other remedies, yielded to the action of fifteen drops of oil gaultheria, given on sugar once in two hours. In 48 hours the patient could walk on her feet and was free from pain.

A case of chronic cystitis that had been treated by different doctors had the bladder washed out with solution nitrate silver, and taken the usual remedies

℞ Populin (Con) .....gr. i.
Hamamelin (Con) .....gr. 1/8
Gelsemin (Con).....gr. 1-16
Mix. Take one pill.
Sig. One pill once in three hours.

A case that had been diagnosed as cirrhosis of the liver, was given one grain of euonymin night and morning, with a diet of mush and milk. At the end of ten days the feces that were previously clay colored had become a natural color, and the patient generally improved. It took just three months to effect a cure of the case.

For torpid liver, constipation and weak digestion you will find the following excellent:

℞ Fld. ext. euonymus.....ʒi.
Symple syrup .....ʒv.
Mix. Sig. Teaspoonful night and morning.

I have had cases of spermatorrhea that had been the rounds, cured by the following:

℞ Sulph. strychnia .....gr. 1-30
Gelsemin (Con).....gr. 1-16
Mix. Ft. one pill.
Sig. One pill at bedtime.

The gelsemin concentrated should not be confounded with the alkaloid gelseminine, of which the dose is gr. 1-250.

Do not forget the fact that zanthoxyllin (con) one grain added to 1-30 grain of sulph. strychnia given once in 3 hours will cure more cases of hemiplegia than the strychnia alone can do.

In the hot flushes that trouble women at the menopause, and worry the doctor, give sepia, fourth decimal tritation, 3 one grain tablets 4 times a day.

In full blooded women with headache at menopause caused by rush of blood to the head, give tr. veratrum viride the first decimal dilution 5 drops three times a day.

Remember that a hypodermic injection of morphine will always stir up some latent disease in the system, and cause trouble later on. When tempted to dope your patient in this way just stop and think of what you are doing. How many morphine fiends have been made by just this kind of bad practice. Find out the cause of the pain and remove it. Pain is not a disease only the symptom of some diseased condition. Morphine never relieves pain, and only stupifies the patient so they don't feel the pain. In a practice of 40 years I have not used half a drachm of morphine or opium. The latter are the "siege guns" of the materia medica, always to be kept in reserve, when all else fails.

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VARIOUS TOPICS.

By J. A. Burnett, M. D.

In order to prevent prescriptions from being refilled physicians can use an ink that will soon fade. Here is a formula:

℞ Iodine .....gr. ⅓
Potassium iodide .....gr. ⅓
Mucil. acacia .....oz. 1
Aqua q. s. ad.....oz. 7½

Dissolve the potassium iodide in one drachm of the water, add the iodine and when it is dissolved add more water and the mucilage. Use the ink on glazed paper. The writing disappears in about four days. Again some nut galls can be boiled in some nitric acid and an infusion of gum arabic and a little sulphuric acid added to this. It will disappear in a few days.

Here is a note from Dr. A. L. Sanders of Purcell, Okla.:

"Do you know anything about or have you heard of horsemint for bathing in typhoid fever. I will say, gentlemen, if you will boil the whole weed and give your patient a good hot bath in this water, then wrap him up and let him sweat, it will bring down the temperature when other remedies have no decided effect. I am not an 'herb doctor' but I have tried this with good results following."

For colds and la grippe:

℞ Codeine sulphate .....gr. iij
Coffeine citrate .....gr. xv.
Aspirin .....ʒj
Fibro-tone .....ʒvj
M. ft. sol.

Sig. One tablespoonful every four hours. If a clear solution is desired in the above add two drachms spts. rect.

A spicy syrup that makes an excellent vehicle for quinine and other bitters is:

℞ Cinnamon .....20 gm.
Ginger .....12 gm.
Cloves
Nutmeg .....aa.....8 gm.
Ext. of licorice.....50 gm.
Sugar .....750 gm.
Alcohol .....q. s.
Water to make .....1000 cc.

Mix the spices, moisten with alcohol (94 per cent), transfer to a percolator and cover with alcohol after packing. Macerate 24 hours, then percolate slowly to obtain 100 c. c. of percolate. Mix this with the sugar and evaporate off the alcohol at a low temperature. Then pour water on the drugs until 500 c. c. of percolate are obtained. In this dissolve the licorice and aromatized sugar and make up to 1000 c. c.

Quinine bi-sulphate is very soluble in liquid guaiacol and the combination makes a good local application for systemic effect of quinine.

One chemist informed me that quinine bisulphate was soluble in liquid guaiacol in most all proportions up to one and one. Another dissolved without trouble fifteen grammes of quinine bi-sulphate in 10 grames of liquid guaiacol.

NAN

By Gordon G. Burdick, M. D., Chicago, Illinois

(Continued from Page 410 November Recorder)

When we arrived in Chicago after clearing up Nan's affairs in Detroit, I placed her with good Mother Schnider, as this seemed the best thing to do under the circumstances. The good lady was very glad to see Nan and welcomed her with undisguised affection.

Nan was compelled to take several days' rest before she was allowed to assume her old place as waitress in the restaurant. It was evident to me that the work was too hard, and would eventually break her down if she kept at it long enough. I tried to convince her that sewing was more in her line but without success, so I left her to her duties and went out on a prolonged hunting and fishing trip, serene in the belief that everything was all right, and that I was entitled to a vacation.

I joined with several congenial spirits and we went into the northern woods of Wisconsin, many miles from human habitation and I enjoyed myself only as a country lad can, who has been imprisoned in a great city for many years. I had the time of my life, and when at the end of four weeks I returned to civilization, it was with many regrets that my vacation had been so short. When we reached our railway station we were hailed by the postmaster, who said he had much mail matter for me, while several telegrams were also waiting in the depot for me. This excited my curiosity, as I could see no reason why anybody should get excited about my absence for so short a time, and I became apprehensive that something had happened my family. This was not allayed any when I saw that they all bore the name of my colleague who was left in charge of my practice, and I eagerly tore off the envelope and scoured the contents. The burden of the message was to the effect that Nan was taken violently sick following an involuntary wetting she had received while out in the rain, that she had been taken with salpingitis, and a large abscess had formed, making a laparotomy imperative. He had performed the operation and had been compelled to remove both tubes. She had not rallied well from the operation and he desired my counsel. I have made many long journeys in my life, but never one that seemed so tedious as this. It seemed that it never would terminate, and I am afraid I did not make a very sociable companion for my friends. They tried to draw me out only to find ill temper, and at last left me to my own devices which consisted of pacing up and down the car with my hands behind me, thinking.

As soon as we arrived at the outskirts of our great city, I swung off the train, and having learned from my colleague where Nan was located I made arrangements for him to meet me at one of the hospitals.

I was cautioned by the nurse that she was very low, and to be careful not to shock her, so I walked into the room gently and was heart-sick when I saw the ravages disease had made on her in four weeks. She was semi-conscious, and when I approached the bed she seemed to know me, and put out a hand feebly, seeking mine and closed on it

weakly. When she had found it she gave a long sigh and seemed to go to sleep. I remained with her until my friend arrived, and then went into the details of her illness carefully.

It seemed that she rallied from the operation well, but persistent vomiting ensued so that it seemed wise to withhold water from her. This continued for nearly a week, when she went into a semi-conscious state from which she was aroused with difficulty.

Suspecting that she was suffering from waste poisoning due to a lack of alkali I suggested that we give her normal salt solution and sodium bicarbonate.

This started the kidneys promptly, and upon the examination of the secretion we found that she was intensely toxic from absorption from the intestines, so that enemas of soap and water were used until a mass of decaying material was removed. She was given large quantities of the carbonates and chlorides by both the bowels and stomach, and we were rewarded by the next morning to have her awake and ask for something to eat.

To follow our work step by step, and how we gradually won her back to health would be tedious, but instructive, suffice to say that we had her back to Schnider's within four weeks with a hole in her stomach that she never seemed able to fill. Her gain in both health and strength was remarkable and her old beauty and spirits came with it.

She was able to carry on her work with enthusiasm, and could hold her own in repartee with the best drummer who happened to drop in. I was well pleased with her and her work, and as she was self-supporting, I did not interfere much with what she did, so it was with a shock that I heard that Pop Schnider had sold out, and was going bag and baggage to Germany to spend the honest dollars he had earned here. This made it necessary that Nan find some new work, as the old man had sold out to a disreputable character, and the whole character of the place was to be changed.

We consulted many times on the matter, and as we could not agree, I let Nan have her way, so she was hired as a clerk in a large department store, selling hardware for five dollars a week. I told her that she had better go back to housework, as she could get this amount together with her board and clothes. The prospect of being a servant however overruled other considerations, and she started in at her work. She had the hardest possible time trying to make ends meet, and I knew, although she would not acknowledge it, that she went to bed hungry many nights in order to have a clean collar to wear the next day at the store. She seemed happy however, and received some occasional help from me. It seemed that eventually she would be promoted to a better salary and position, a hope that seemed vain after she had been there for one year, and was paid the same amount.

I was surprised to look up from my desk one day to find her standing in front of me with her hands clasped behind her while she was rocking back and forth on her heels. I had seen those moods before and knew that was her way of thinking. So I asked briskly, "Well, kidlets, what deviltry now?"

"How do you know that I contemplate any?" she asked suddenly.

"Now, don't beat around the bush," I said, "out with it. What's happened."

"That's what I want to know," she said.

"What did they do to me in the hospital?" she asked suddenly. "Well, I met my nurse yesterday and she told me something that has made me think. She told me I was not a woman any more."

"Oh, splash," I remarked lazily, "let's play marbles."

"No," she said with energy. "Don't

try and put me off, I want to know am I a woman or not?"

"Not!" I answered.

"And I am not a man."

"Hardly," I answered.

"Then what in heaven's name am I?" she said with intensity.

I shrugged my shoulders and remained silent. She thought for a few minutes and the eyeing me said, "I am a 'medical frauenstien'" a creature neither man nor woman, but who looks like a woman, has some of their functions, but none of their responsibilities. Am I right?" she asked.

"You are," I answered softly.

"I thought so," she said briefly. "Good day," and she was gone.

I cursed that long-tongue nurse under my breath, and was apprehensive as to the outcome, still as time slipped away and Nan stuck to her work the matter had slipped my mind, when I received another visit from the girl, who stood as before, and asked suddenly, "Would you hate me if I should do something that would shock you."

"No," I answered candidly, "no matter what you do, if you need my help it is yours."

"You are the only human being I have in the world whom I care for or whose good opinion I appreciate. I am discouraged, and I see nothing but drudgery ahead of me, with no future. What I shall do I know not, but whatever I do, please be charitable in your censure."

"Now! Now! Don't get discouraged, you are hungry, and your work has got on your nerves. Let's go out and get a good dinner and then the world will not be so blue."

We enjoyed our last dinner together and talked over old times, and when I left her she was in a gay mood, and I believed that she was contented with life again. In this I was fooled, but did not realize it until she was beyond my influence.

I received a letter from her mailed in Denver, wishing me all kinds of happiness, and telling me that she had changed her occupation to that of a private chaperon, and just at that time she was going through the country in a private car, taking care of the youthful scion of a well-known railway president. The young man was only twenty-one years old and her duty was in keeping designing women away from him. They were scheduled for a trip all over the West and South, and the two were having a very good time of it. I was favored with letters from time to time, giving me details of her different changes, but never one with an address where I could reach her, as she took precious good care to keep away from Chicago. Some four years after these events, while sitting on the veranda of a summer hotel smoking and strangely thinking of Nan, a high powered car swung around the corner on two wheels, and raced up to the hotel and stopped. A elegantly dressed young woman who was exquisitely beautiful stepped out and ran lightly up the steps. I recognized her and called "Nan." She was startled and drew back, but as I advanced she came forward, and seeing that I was genuinely glad to see her advanced with enthusiasm. She was so tickled that she was beside herself, and asked me, "So you don't blame me."

"No, I can't say I do," looking over her diamonds and dress. "It certainly beats the hardware business at $5.00 a week. Who is the chump you are chaperoning now?"

"Oh, him!" she said, jerking her thumb over her shoulder. "He is Mr. T————'s son. He has plenty of money but no brains. He needs a guardian."

"Here Freddy!" she shouted ."Come here."

"Doctor, this is Freddy. He is the smartest one of his family. He can make a noise like a cork in a champaign bottle. Can't you, Freddy?"

He was a pretty specimen of a rich young saphead, with a prehensile face

and a cigarette held between his protruding long tombstone teeth.

"Come, Freddy, show the Doctor how nicely you can do it."

"Naw, I don't want to," he said.

Nan stamped her foot, and demanded that he do as she asked him, and I was much entertained as I listened to a really good imitation of this interesting proceedings. I slapped the chappie so vigorously on the back that he nearly swallowed his cigarette.

I advised Nan to train him so he could jump through a hoop, and stand on his head, and I was sure they would make a fortune on a vaudeville stage, if papa's money would run out.

Some of us may or may not agree with the course of this girl in life, yet when we consider that we live in a civilization which has a standard of morality, where they welcome the prodigal son with fine raiment and fatted calves, and where the prodigal daughter is kicked off the back steps, we may apply the philosophy of the gentle man from Galilee who told the self-righteous people who were present that the man among them without sin should cast the first stone.

THE END.

THE RAVEN

Original Drawing by Grace M. Norris, M. D.

And the raven never flitting, still is sitting, still is sitting
On the ghastly skull, just above my chamber-door;
And his eyes have all the seeming of a demon's that is dreaming,
And the lamp-light o'er him streaming throws his shadow on the floor;
And my soul from out that shadow that lies floating on the floor

Shall be lifted—Nevermore!

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

ELECTRO-THERAPEUTICS

I note the articles of Drs. Blackwood and Wells in your valuable journal.

I want to take issue with Dr. Blackwood and some of his statements. An article on electro-therapeutics, in order to be of any value to the other fellow, especially to the beginner should be definite and give details and technique. The Blackwood articles are generalities.

For instance, I would like to know what technique he uses in the treatment with high frequency modality. Does he use the same from a coil? And if so, is it a Ruhmkorff or Tesla, which are very different: or does he use a current from a static machine, and if so, does he use the simple static modality, or does he use the same with condensers or solenoid resonators?

He speaks of using the high frequency modality with "fairly strong currents" in the treatment of diabetes. That statement is susceptible to considerable elucidation. Again in the treatment of appendicitis, he uses the "strong faradic currents." What does that mean? If it means the ordinary low tension induced current from the common faradic battery, this is very irritating, and is absolutely contra-indicated in appendicitis, or any other inflammatory condition, and would come about as near being malpractice as anything could be.

Again on page 395, he speaks of making application of high frequency with the X-ray tube. Does he mean the ordinary high vacuum X-ray tube, or the Snow low vacuum tubes, which are not X-ray at all. I have taught the science of electro-therapeutics to some 6,000 physicians during the past 15 years, but I try to teach them scientifically.

I want to endorse much that Dr. Wells has said concerning the value of X-ray in skin diseases. I find I get the best results in chronic conditions, when using X-ray, giving flashes instead of a steady ray. I remember one case of extensive eczema of 28 years standing, who only received 28 treatments, and has been entirely free from trouble for many years.

Personally I am afraid of the X-ray, and use it as little as possible, besause I am very susceptible to its action, and have an idiosyncracy against it, and I use all possible means of self protection.

The world keeps on moving and we find out new things daily and the old apparatus soon becomes obsolete.

During the past 20 years, I have myself constructed ten electro-therapeutic outfits. Last year I bought my little outfit, the Betz specialist. I have had ten different static machines, and am now using a Betz, 1907, model with entire satisfaction for the past four years. Am now using my second X-ray coil. It is the Campbell.

Electro-therapeutics is the least crowded, best paying and most satisfactory branch of medicine any doctor can take up, either as a specialty or in conjunction with general practice, and thousands of doctors who have taken my course of lessons, are making good.

I want to corroborate what Dr. Wells says about the use of copper electrode, which always sticks fast when used with the positive pole, because the oxygen and acids liberated at the positive pole, corrode the copper, and a resulting oxychloride of copper is driven into the tissues by anaphoresis, and acts like an acid caustic. This effect always follows the use of the positive pole with any metal except gold and platinum, and

never occurs with the use of the negative pole. The only metal that is corroded with the negative pole is aluminum, which is slowly acted upon and dissolved by the alkali liberated at the negative pole.

Electro-therapeutics is not a fad or a fake; it is a fact and a fixture.

H. C. BENNETT, M. D.

Lima, Ohio.

SOCIALISM.

REPLY TO DR. MASTIN.

It may be considered a hard indictment, but I have the nerve to make it. The prevailing state of society, as at present constituted, is as a mass, devoid of ambition, pride, honor, and morals; and you will never see the day when this state of society will change for the better. Where are the intelligent masses who can fill the places of capital? The masses today have become so politically and morally corrupt that even their votes are not their own, but belong to the man who handles the boodle. Furthermore, a large manufacturer told me that he employed hundreds of mechanics who received wages from $2.00 to $2.50 per day, and that they spent in nearby saloons an average of one-third of their wages, every day. Will they aspire to better conditions? A few years ago I was in the great "Homestead Plant," in Pittsburg, and mechanics received splendid wages—large numbers getting ten dollars a day; and I learned that the fewest number saved their earnings. The socialistic propaganda implies ideals impossible of realization, because the people are not fit to manage utilities, products, and themselves, as self-reliant, self-governing, independent citizens.

If the good doctor's theories could be put into practice, it would be "a consummation devoutly to be wished." But he will be gathered to his fathers long before he will see his dreams come tru. Whiskey and intemperance are rampant in this country, and the masses can not be elevated and made to occupy the status contemplated by Dr. Mastin. Think of it! Church members vote to perpetuate the hellish saloons! I was the candidate for State Senator from three counties in 1908, and we stood "local option," which is purely self-government," and from Watson for Governor down we were defeated; and I was told by professed Christians that they would not "vote a man out of business," as though making drunkards is business. Such Christians are not worth hell room!

If you think you can make ideal government with the masses, just consider these statistics.

The annual cost of intoxicating drinks to the masses in the United States is near $400,000,000. Add to this $100,000,000 for the care of drunkards and their families in sickness and pauperism; add $25,000,000 for burying them, and care in almshouses; add property loss—$25,000,000—yes $50,000,000, and you have not counted all the cost. The masses are of the kind you can never make good citizens of. To form any adequate conception of the evil, is difficult. In the city where socialistic government is on trial, it is beer and whiskey-soaked, and you may bet your life it will fail of the doctor's ideals.

The doctor, while a good meaning and able man, is like other advocates of socialism—they don't give us any specific tenets of their creed. They talk of the inequalities in social conditions, the consumer and producer by his labor, not getting their just proportion, but they are great on uplift, independence, self-assertion, and the people on top. Capital takes as much chance to lose as labor does, and ten times more. There has never been a time when labor has been better paid than now. Take the savings of the working people in the United States as given in the last census. It perfectly astounds us. Labor must be earning something from the

capitalistic barons. As Waterson used to say, the "Robber Barons."

What a fearful hue and cry we hear about "trusts," "monopolies," "octopuses, etc." Everybody abuses and ridicules Rockefeller. Let me tell you I don't have anything but respect and admiration for such men as Rockefeller, and Carnegie.The good doctor don't remember when we had to use tallow candles, and a quarter of a dollar's worth of them would not give the light that one quart of oil will now, which costs about two cents. Such men ventured their money and with brains, and labor, have wonderfully blessed humanity. They have paid out millions upon millions to labor, and to producers. Carnegie began as a poor Scotch peasant, and by brains, energy and skill, gave profitable employment to 15,000 men.

Now, I want to tell my good friend, Dr. Mastin, that if ever his ideals are to be realized, it will be among the suburban population, and never in the large population centers. I have been three times to the large cities of the east, twice to the extreme west, several times to the north, viz., Chicago, Detroit and Canada; have also been to the Gulf cities, and through his adopted state; and the vice, crimes and misery of these large cities is something shocking. You might just as well atempt to uplift a hog as to atempt to make anything out of the masses in the cities. You can't get the material from any but the common people, and the common people don't hanker after improved social conditions. They don't aspire to self-government ; and can't be educated up to it.

And finally, my dear, good doctor, you will be in the "Sweet By and By," or in the "Beautiful Isle of Nowhere," before your beautiful aircastles will be metamorphosed into the real solid structure of a socialistic millenium.

D. L. Field, M. D.

Jeffersonville, Ind.

ELECTRO-THERAPEUTICS

There is a great variety of opinions on electro-therapeutics as well as all other branches of therapeutics and this will continue to be the case until such subjects are better understood. When a subject is not thoroughly understood there will be various opinions formed concerning it. Again when there are more ways than one of doing a thing it will confuse many people because they do not use enough judgment to consider the matter well enough. All physicians are aware of the fact that there is a grat difference of opinions on drug therapeutics. If one hundred physicians were called to see a case and paid to prescribe for him not knowing that any other physician had seen it or was about to see it there would likely be one hundred different prescriptions. This shows that medicine is not an exact science or that there is more than one way of doing things.

Dr. J. R. Phelps uses electricity different from most all other physicians and claims to get good results and I feel sure he does. He does not use electricity only for one purpose and that is to drive medicines in the system. He generally uses a Lord Baltimore faradic battery for this purpose as it is a very small battery and can be conveniently carried by a physician on his calls. His old way of driving a remedy in was to wet a cloth with water and attach it to the negative pole and then hold the positive pole in one of his hands and with his other hand he applied the medicine over the place where he wanted it driven in, the cloth being opposite next to the patient's skin. For instance, if he wanted to drive a medicine into the liver he would place the patient on his back on the wet cloth with the negative pole attached to it and take the positive pole in his hand and with the other hand apply the medicine over the liver. Recently he does not hold the pole in his hand but saturates a sponge electrode with the

remedy and attaches it to the pole he formerly held in his hand and applies it over the part. Further information can be found in my article "Notes on Electro-Therapeutics," Dec., 1908 Therapeutic Record.

Recently I asked Dr. J. R. Phelps if I could get the same results from the Philadelphia Domestic Battery or the Household Voltantamp Medical Battery as I could from the Lord Baltimore battery sold by the Chloride of Silver Dry Cell Battery Co. and he said:

"Yours of the 3d is at hand. I think I can set your mind at rest in regard to the battery.

"What is the enery that disintegrates the remedy driven in by electricity? Simply a current from a cell and whether this is a dry carbon cell, chloride of silver, Samson or La Clanche cell, or gravity cell, the nature of the current is identical. A remedy can be driven in with a current from any of these cells without the intervention of an induction coil with vibration. But as I have told you before I find the suggestive effect of the noise of the vibrator is a considerable factor. There are people who cannot understand that anything is going on unless there is some some noise about it.

"Now the effect on any battery comes from the cell. What the current passes through is of no consequence. The vibrator simply opens and closes the current and if it works in a steady way is all that is required. I have seen as fine vibrators in a cheap battery as in one costing $100.00. The whole thing is as simple as a hypodermic syringe: if the plunger is tight it will carry your remedy whether the syringe is kept in an embossed gold case or a pasteboard box.

"Of course, batteries for cautery use are another affair and even then the whole thing depends on the strength of the current. You can get your cautery wire white hot with a nest of cells attached to the cautery wire with a stove poker only such an apparatus is not apt to impress the imagination of the patient very favorable.

"A doctor in London, N. H., told me the other day that last summer he was called into a house that he was passing, to see a man who had badly mashed his foot in a wagon wheel. Immediate amputation was necessary and with a carving knife and hand saw he performed the operation with only the aid of the farm hands and then drove ten miles home and returned with his antiseptics. That's genius.

"I don't see any reason why any of the batteries you call my attention to will not do satisfactory work with this advantage, you can get a new cell for 15 cents and the Lord Baltimore cell costs 75 cents and is no more durable.

"Some years ago I was superintendent of an organ manufactory in Worster, Mass., A chap opened up a little 7x9 box on a street corner where he sold underwear. I got some of him for which I paid $2 25 per suit. One of our tuners got the same thing in a small store and showed them to me. He had paid $3.75 for them. I opened my bundle and showed him mine which were the identical brand, manufacture and quality and told him that I paid 'Cheap John' $2.25 for them. He remarked that he did not buy clothes on the sidewalk. Well I am not proud, I can't afford to be.

"Perhaps you may have discovered that there is much humbug in the world. I will have pure drugs and I know I get them from Merrell or Lloyd. But I do not make any difference whether I administer it from a teaspoon, tin dipper or wash bowl, so long as they are clean. See!"

Some physicians have a technical knowledge and some have a practical knowledge and the one with a practical knowledge is always the most successful in practice. Theory cannot always be put into practice. Most all physicians say a remedy cannot be driven in with

a faradic battery but Dr. Phelps says they can, so the way to arrive at the fact is not to study it from a theoretical standpoint as taught in text books but try it and demonstrate from personal observation and then the facts of the matter will be known. Some remedy, acetanilid in fever or some purgative as podophyllin should be used so the physician would be sure to learn whether the remedy had any effect or not.

J. A. BURNETT, M. D.

Little Rock, Ark.

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THE MEDICAL PROFESSION MUST CHANGE ITS TACTICS.

He who is not a frequent visitor to radical clubs, does not come in contact with newspaper men, with New Thoughters, and does not regularly read the numerous naturopathic, health culture and physical culture journals, and other allegedly advanced publications, can have no idea how the medical professio is ridiculed, how it is maligned, how it is lied about, how it is misrepresented, how it is "knocked" on every possible occasion.

We are pictured as ignoramuses, grafters, butchers, anxious to operate whether there is a necesity or not, drug dopers, etc., etc. We are denounced as a trust, monopoly and any attempt of ours to organize, to pass laws protecting the public health is characterized as an attempt at class legislation, a desire for special privileges, inspired by our fear of the competition, by our fear of the superior skill of our irregular rivals.

And the average physician who has not given the matter any thought, has no idea what effect these unceasing slanders and persistent lies have on the public mind, how suspiciously a large part of the public is beginning to look at the medical profession, how we are losing the confidence of the people, how the ground is slipping from under our feet.

As an illustration we need only mention the reception that has been accorded to the suggestion of a Federal Department of Health. The motives that actuate us and the objects of such a department were at once misrepresented, the people are made to believe that their freedom to choose a medical adviser was threatened, the forces of reaction and obscurantism, masquerading in some instances under the guise of liberalism, were quickly marshalled and in a short time a society was organized, which now claims a membership of one hundred and fifty thousand.

We, physicians, are ourselves to blame. When the irregular, fantastic and pernicious cults began to make their appearance we paid no attention to them. We thought they amounted to nothing, and would soon dry up and shrivel away of themselves. When the malicious attacks began to appear in the various quack publications, we remained silent. We considered it infra dignitatem to pay attention to them, and we thought the public would have no difficulty in seeing through their falsity and meretriciousness.

Our long and patient inactivity has been due to the false idea that truth will always triumph and error is bound to die. Yes, eventually. But if error is allowed to grow and spread unhampered, while those who see the truth will not take the trouble to proclaim it and expose the error, then it can take centuries before the correctness of the truth and the falsity of the error will be perceived.

In this as in every line of human activity prevention is immeasurably superior to cure, and the right way to fight error is not to permit it to get a firm foothold. Error and superstition are hard things to uproot after they have attained the dignity of a universal belief.

It is time that the medical profession change its tactics and assume a wide-awake, militant attitude. It is time that we actively attack error wherever it shows its head. By reading papers

before lay audiences, by participating in discussions, by writing to the newspapers, by refuting the false arguments of the false prophets wherever they appear, we can do much toward destroying the influence of the quacks and the irregular cults. In short, we must throw off our exclusiveness, we must go out to the public and take it into our confidence.

The truth is with us—that we know; only we must not hide it under a bushel, and expect that its light will, without any effort on our part, penetrate into the darkest recesses of ignorance and quackery.

William J. Robinson, M. D.
New York City.
President of the American Society of Medical Sociology

SOME OLD AUTHORS.

In the year of 1890 I fell heir to quite a library of old books, medical and literary, most of which had been gathered up in Scotland and England before our late civil war. A portion of this valuable library has been left in storage, some in part of the Highlands, prior to the late conflict, consequently, was lost beyond recovery, making some of my volumes incomplete. Vol. III. of James' Fragments of Medicine, consisting of about one thousand and printed near the year 1735 was lost and I have, after repeated search in many of our large Eastern libraries failed to find a copy.

During the year of 1892 I printed an original manuscript entitled "Medicine of the Ancients," and through distribution and advertising at the time, received inquiries concerning metallurgy and metallurgical writers mostly coming from the direction of Pittsburg, Pa. For the benefit of those who have a limited number of old books and those who wish to make use of some of the nearby reference libraries I will name a few of the old authors and their works.

George Agricola was born in Glaucha, a town of Misnia, in 1494, and died in Chemnitz in 1555. As a proof of his learning his work De re Metallica was reprinted several times in folio. By visiting all the mines and conversing freely with the miners in Germany he acquired a thorough knowledge of the whole process of metals and from him most of the following writers up to the year 1800 have taken the greatest part of what they know. He wrote in an elegant Roman style and in the first part of Metallurgy or discovery of metals he is the only author. Several authors have written comments upon him but he is clear enough without any. His other writings are Bermannus, Five Dialogues de re Metallica, De Ortu Causi Subterraneoum, De Natura Fossillium; Explication, in high Dutch, of the terms used in Metallurgy. The same with the addition of a copious index, revised, divided into chapters and illustrated with marginal notes. Agricola was also the author of twelve other books on the subject of metals.

Lazarus Erckern, another writer, was superintendent of the mines in Germany, Transylvania and Tyrol. He was an experienced, honest and candid writer, relating nothing but what he had himself seen, and he never failed enumerating every circumstance. His style was clear, and his book, written in high Dutch, was published in 1694, and entitled Fleta Minor, or the Laws of Art and Nature, in knowing, judging, assaying, fining and refining, and enlarging the bodies of confined metals. This book is illustrated with sculptures.

Joannes Rudolphus Glauber was a celebrated chemist of Amsterdam, accounted the Paracelsus of his time. He wrote more than thirty volumes in some of which he acted as physician, in others the adept, and in others the metallist. He principally excelled in the last. He is the author of Sal. Glauberi, also of nearly all of the acid spirits made by means of oil of vitriol. It was this Glauber who showed before the states of

Holland that there was gold in sand and made an experiment thereof to their satisfaction. A few of his writings are these which were published at the beginning of 17th century in high Dutch and translated into latin:

I. Furni Novi Philosophici, in five parts 8vo.

II. Annotationes, uber den appendicen.

III. Operis Mineralis Pars 1 ubi docemeter. Pub. in English.

IV. Oeuvies Minerales, 8vo.

V. Libellus Dialogoum, 8vo.

VI. Explication of the infernal goddess Proserpina, wife of Pluto, what the poets as Ovid, Virgil, and others mean by her, and how by the help of Prosperpina the souls of dead mteals are delivered from chemical hell.

Other metallurgical writers are these, Jo. Joach Becher of Spire, born 1625 and author of nine works.

Jo. Kunkel, born 1630, chemist to the elector of Saxony, then to the elector of Bradenburg, and lastly to the king of Sweden. He is the author of four works, one of which is a very curious book translated into English by an able hand, under the title of Art of Glass.

Olaus Borichius, Scandinavian, born 1626, author of four books.

And. Libavius, of Hall, in Saxony, born 1570, authr of two works.

J. Webster of England, 1620.

Alonzo Barba's works are in Spanish, translated into English by Earl of Sandwich, year 1674, 8VO.

There are only three more of these writers of any importance viz., Marco Anthonio, M. Reamur, and Em., Swedenborg. There was one other work published about 1740 by Christopher A. Schluter, which is well illustrated by numereous copper plates. This book is in English and the copper plates are beautiful, executed to a scale.

W. Stuart Leech, M. D.

Portland, Oregon.

THERAPEUTIC NOTES.

BOILS.

The following is worth recording and may be of some use to many readers:

W. R. Smith advises to take a soft piece of linen or gauze, rub vaseline on one side, quickly pour on some chloroform, apply to the undeveloped boil and bandage. Smarting is soon followed by cool, pleasant sensation. Change often and in from one to two hours the boil, no matter how large or indurated, will soften and open. Makes an everlasting friend of patients who fear the knife.

PHENOLPHTHALEIN.

A tablet composed of calomel and and podophyllin each grains one-sixth and phenolphthalein gr. one-half, made pleasant with chocolate and aromatics is one of the most useful purgatives for general use a physician can keep on hand. Dose one tablet every half hour until six are taken, then one every one or two hours until purgation.

SODIUM SALICYLATE.

Sodium salicylate is a valuable remedy and often indicated in general practice. I find that 10 grains of sodium salicylate with 5 grains of acetphenetidin given every 3, 4 or 6 hours gives good results in acute rheumatism with fever and pain. The bowels should be emptied by some good purgative before giving this, especially in constipated subjects or if bilious. The question whether the true sodium salicylate from the natural oil is better than a good synthetic preparation has never been settled for all. Some claim one thing and some another. The true preparation costs more than six times as much as the synthetic. According to my experience so far I have noticed better results from the true preparation than the synthetic. I consider E. R. Squibb & Sons high authority and they say:

"By some practitioners sodium salicylate prepared from the natural salicylic acid (derived from oil of wintergreen) is claimed to be better born by

the stomach and to be therapeutically more active than that from the synthetic acid. While this may be true when impure salicylic acid is used in the preparation of the sodium salicylate it is extremely doubtful whether the natural product offers any advantage over a properly made and pure synthetic preparation." I have never used Squibb's sodium salicylate.

J. A. Burnett, M. D.

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DRUGLESS TREATMENT.

I was very much interested in reading an article by Dr. Geo. L. Servoss, in your November issue. Whenever drugless treatment becomes a fad with a physician he ought to take down his shingle and resort to "Faith Cure" or "Christian Science." It is just as the learned therapeutist, Dr. Servoss, says; "Has not the fault found with the drug treatment of disease, in many instnces, (he ought have said every instance) been due to a lack of knowledge of both the specific action, and application of such agents?" The great trouble with many physicians, and which may account for the loss of faith in the curative effect of drugs, is their want of steadiness and stability in the treatment of disease. They multiply prescriptions, and change from one combination to another so rapidly that nothing is given intelligently, nor given a fair trial. Of course, some ills will get through, by rest, diet, and nursing, but when serious cases occur you must resort to medical remedial agents. First, try faithfully to correctly diagnose the disease; and pursue a definite object, steadily and perserveringly. Use a rifle and not a shotgun. Take for instance, pneumonia; there can be no routine treatment for it. Some cases require stimulating, supporting treatment, while other require sedative, depleting and active antiphlogistics. Some physicians give expectorants at the start, and they might just as well give sugar water.

Until the congestive and engorgement stage is past, expectorants are not only useless, but harmful because ignorantly given, when other agents should be pushed. Therefore, not getting results that can't be obtained from a mistaken line of treatment, they blame medicine for failure. It is not medicine that fails, but it is the doctor who does.

D. L. Field, M. D.

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PHYSIC IN YE OLDEN TIME.

I notice in Dr. D. L. Field's article "Physic in ye olden time," and published in the Sept. issue of the Recorder, a remarkable theory which not only amuses me greatly, but also calls forth my highest admiration for the brilliant phantasy of the author. It reads:

"How many stop to consider that they are praying to an ancient god of the Greeks every time we head our prescriptions with the sign of ℞ which character is but an abbreviation of the prayer to the god that the remedy may be effectual in the prevention, relief, or cure of disease."

I must confess that as I as a medical man and, modestly speaking, as a man of science, always considered the popular Latin motto: "Ubi tres medici, duo sunt athei" to be correct, and that the character ℞ or Rp is simply an abbreviation of Latin word "Recipe," which means in our "vulgar" language "Take."

This "Capital" ℞ has always caused a great deal of mischief in prescriptions written by medical men who either have no knowledge of Latin or who don't stop to consider that the names of the drugs which follow the word recipe must be written in the genitive case; e. g. ℞ Aquae amygdalarum amararum.

To such doctors the above mentioned theory should be decidedly acceptable; for even if the abbreviated ℞ does not exactly stand for a prayer to an ancient god of the Greeks, it must be, nevertheless, an invention of the devil.

M. Leon, M. D.

Mt. Olive, Ill.

RUNDSCHAU

By H. SPEIER, M; D.
Minneapolis, Minn.

WATER PURIFICATION THROUGH METALS.

Whatever has a bearing upon prevention of diseases is at the present day not only of interest to physicians, but of practical value to the public. Of this kind are experiments made by Dr. A. C. Rankin, bacteriologist at McGill University, Montreal, verifying the finding that minute quantities of metals present in water will cause the death of bacteria, so that water may be sterilized by merely keeping it in a metallic vessel. The Lancet says in part about this: "Sundry metals possess not merely a distinct inhibitory action upon the growth of molds, bacteria and other micro-organisms, but exert even a germicide power. Water containing the typhoid bacillus and kept in a clean copper bowl becomes sterile. When air is passed through water containing abundant colon bacilli there is no inhibitory effect. Relatively large amounts of pure zinc with large surface area, placed in water well contaminated with abundant colon bacilli and allowed to act for one hour, bring about a recognizable, but not extreme, destruction of the bacteria. Aluminum and copper under similar circumstances, have no perceptible effect. The same experiment repeated, but with the oxygen drawn out of the water by previous boiling, proved that none of these metals had any influence upon the subsequent growth of the bacteria. From this it would appear that the bactericidal activity of zinc is associated with the coincident presence of oxygen. A much more intense bactericidal action is produced when air is permitted to bubble for one hour through water holding the colon bacelli in suspension in the presence of aluminum, zinc and copper. With a sufficiency of the pure metal it is thus possible to render water completely sterile with all three metals, even when it contains abundant bacteria."

To believe that the problem of the purification of water had now been solved, an dthat all that was necessary was to provide large enough metallic containers, so that the water could be brought into free contact with the metal would be a great error. A great length of time—the writer does not know how much—elapses always, before any effect is produced, and a constantly renewed flow of oxygen must be supplied or no inhibitory influence can be exerted by the metal upon the bacteria. Some day a serviceable and cheap system of purification of drinking water on a large scale may be developed out of the knowledge gained by these experiments, but the day is still distant.

GET IN AND GET OUT.

That is rather a catchy phrase brought forward by Robert T. Morris as a sort of slogan for the modern surgeon. Whether of his own coining or not it occurs repeatedly and prominently in a small collection of his lectures and addresses in which he embodies his surgical creed and which we have been reading recently. Morris is often spoken of as somewhat erratic, and not always taken seriously by other surgeons. Nevertheless he is a successful surgeon and a forceful, if at times inelegant, writer and the central idea of his essays well worth keeping.

According to him surgery has passed through three distinct epochs and is now in the beginning of the fourth. The first, that of Hippocrates' time, he calls the heroic, the second, that of Versalius and the anatomists, the atomic, the third, introduced by Pasteur and Lister, the pathologic era. It is the one

now prevailing the world over. Its dominant idea is to prevent the development of bacteria in wounds and to remove the products of infection. In the pursuit of the idea, Morris believes surgeons have gone to an extreme limit, building up technical perfection and at the same time losing sight of the defensive powers inherent in the humon economy.

The work and teachings of Metchinkoff and Wright, proving the existence and action of opsonins: antibodies, phagocytes, call for a different atitude on the part of the surgeons. No longer shall it be a question of the completely possible removal of bacteria and the products of infection by surgical art, but the giving of a chance to the natural protective forces of the body (what we used to term vis medicatrix naturae) to get their work in. They can and will do the removing more completely and safely than any surgeon. Surgery on this conception Morris calls physiologic surgery, the fourth era, just dawning. The aim must be to leave the patient in his best condition through the shortest possible method of anesthesia and the least degree of surgery which will suffice to turn the tide of battle between bacterium and leucocyte. The new principle is turning the tide of battle only and leaving the patient with his physiology as nearly in tact as possible. In carrying out the principles of the third or pathologic era Morris charges that the patient is often damaged so much that he could not manufacture phagocytes and antibodies freely. He declares emphatically that it is wrong to stop to do ideal and fanciful work. Get an appendix out in any practical way, so long as it is done quickly, without regard for artistic technic. Pay no attention to pus which gets upon normal peritoneum. The peritonium will care for it better than we can with our wiping or washing. Get in and get out!

WHOOPING COUGH.

It is deplorable that the laity looks upon whooping cough as a trifling ailment self-limited, a necessary evil and best let alone, and that many physicians share the view. As a matter of fact the disease has a high mortality, direct as well as remote. Reliable and general statements of the death rate from whooping cough are not available, because as yet only few health departments have taken proper cognizance of the disease as a communicable and preventable one. It is startling to find that in New York state during the month of August of this year there were more deaths from whooping cough than from measles, smallpox, scarlet fever, influenza and rickets taken together, and nearly as many as from typhoid fever and dysentery. It is probable that most of these deaths were due to carelessness, and that through proper and timely therapeutic measures the mortality could be greatly lessened. It is high time that all general practitioners should be made familiar with these facts, and that through them the general public should be impressed that whooping cough is a serious disease with a high mortality, that, while its course can probably not be shortened, its severity can be much modified and complications avoided by medical and hygienic management, and that all children, especially those under two years of age, should be carefully protected from exposure to it.

EHRLICH'S 606.

Dr. A. W. Wolbarst of New York in the Interstate Medical Journal says regarding "606":

Briefly we may conclude that the remedy gives evidence of being able to combat successfully conditions that remain unaffected by mercury and iodides for months and years; that while it is wonderfully effective, it must be used cautiously: certain people show a susceptibility towards the drug, with the result that alarming symptoms might arise; these alarming symptoms disappear as soon as elimination is augmented.

THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

TEXT BOOK OF HYPERMIA. As applied in Medicine and Surgery. By Professor Dr. August Bier, of Berlin. Only authorized translation from the sixth German revised edition by Dr. Gustavus W. Blech, Professor of Clinical Surgery, Illinois Medical College, surgeon in chief, Practitioner's Hospital, Chicago, etc. Pages 439, Illustrated. Cloth, price $4.00. Rebman Company, 1123 Broadway, New York.

For over fifteen years Dr. Bier has been treating a large variety of diseases with artificially produced hypseremia and has met with remarkable success in his work. While his work has became familiar to the profession in Europe, yet in this country most practitioners have only vague ideas on the subject, acquired from brief articles in medical journals.

No matter what opinion the practitioner may have of Bier's treatment as a therapeutic system, a knowledge of the subject is necessary in order to be abreast of the times. Bier's work may compel us to change some of our views on inflammation.

One reason the method has not been given an extended trial in this country was a lack of knowledge of the technique. This book explains clearly the principles of treatment by both active and passive hyperemia.

The various appliances necessary for the treatment are described and illustrated. The work takes up in detail the treatment of each disease by the method. The volume is a complete treatise on the practice of medicine by means of artificially produced hyperemia. The work is very logical and the author's deductions seem most reasonable.

The translator is particularly adapted for his work on account of his command of both German and English, his familiarity with the subject of the book and his long experience in physical therapeutics.

There is not a physician who would not enjoy reading this book and profit by it. A very complete index makes the volume convenient for frequent reference.

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THE PHYSICIANS' POCKET ACCOUNT BOOK. By J. J. Taylor, M. D. 212 pages. Leather. Price $1.00 postpaid. J. J. Taylor, Publisher, 4105 Walnut St., Philadelphia, Pa.

The special feature of this book is a system of accounts whereby each transaction can be recorded in a moment's time in plain language, so that it is strictly legal as evidence in court without personal explanation, and so arranged that any patron's account can be ascertained on demand without any posting. There is only one entry of each transaction, and this in such a form that no posting is ever required. It saves time, labor and worry, and insures that your accounts are always up to date, so that you can send statements out every month without any delay and can inform any patron, wherever you may meet him, of the exact state of his account. This feature alone in the course of a year will secure payments that would otherwise be missed—sufficient to buy account books for a whole lifetime. It is one of the simplest, quickest and easiest account systems on the market.

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laneous tables, clinical directions, etc. Having a good cash account department and various clinical records—vaccinations, deaths and confinements—it forms a complete year book for the physician's pocket.

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Manual of Clinical Pathology. For the General Medical Practitioner, Comprising the Examination of Urine, Stomach Contents, Feces, Blood, and the Serum Diagnosis of Syphilis, Tuberculosis, Typhoid Fever, etc. By Richard Weiss, M. A., Ph. D., F. C. S. In collaboration with Geo. Herschell, M. D. and Andrew Charles, F. R. C. S. Pages 72. Paper. Price 2 shillings. J. and A. Churchill, 7 Great Marlborough St., London, England.

The laboratory has taken an important place in modern medical practice supplying positive data, invaluable to the physician. In the great cities the practitioner can have the work done in any one of the numerous laboratories. The practitioner in the smaller cities must do the work himself or have his assistant do it. This little work is written to furnish the practitioner a working guide and it certainly fulfils its mission. While it is a little paper covered book yet it contains enough material to make a fair sized volume if it were printed in large type instead of the fine type used. The work is plain and practical and presents the latest in laboratory diagnosis.

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Lessons on the Eye. For the Use of Undergraduate Students. By Frank L. Henderson, M. D., Chairman of the Ophthamalogical Society; Ophthalmic Surgeon to St. Mary's Infirmary; Consulting Oculist to the Wabash Railway, etc. Pages 228. Illustrated. Fourth Edition, Revised. Cloth, Price $1.50. P. Blakiston's Son and Company, 1012 Walnut St., Philadelphia.

This book is intended as a class textbook in medical colleges but the general practitioner will find it a very useful volume. The several lessons devoted to the anatomy of the eye present that subject clearly with some excellent illustrations. The diagnosis of all eye diseases is made plain and the treatment given is such as the general practitioner would use. The accepted methods of treatment are presented but no descriptions are given of the surgical operations. The chapter on functional disorders of the vision is good and will be found very useful by readers of the book. An excellent chapter is added on ocular therapeutics, in which the newest drugs used in ophthalmic practice are discussed. There is little in the volume to help the eye specialist but the general practitioner as well as the student, will frequently refer to it. The large sale of previous editions shows that physicians appreciate the book. The volume contains 136 illustrations and a colored plate.

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LITERARY NOTES.

The Rebman Company, 1123 Broadway, New York, publish complete literature on the use of Ehrlich's 606. They issue several different books on the subject. One of the books is the only authorized English translation of Dr. W. Wechselbaum's work, with an introduction by Dr. Ehrlich. The translator is Dr. A. L. Wolbarst, of New York. The work is illustrated with 16 plates.

"Definite Medication" is the title of a book by Dr. Eli G. Jones which is now on press and will be soon issued by the Therapeutic Publishing Co., 703 Washington St., Dorchester Dist., Boston, Mass. Dr. Jones is well known to Recorder readers by his articles which have appeared from time to time in its pages.

A few features of Everybody's Magazine for January are: "Under the Prophet in Utah," by Frank J. Cannon; "The New Confidence Game," by William Brown Meloney; "Furs from the Far Places," by E. Alexander Powell, F. R. G. S.; "The Subject of Miracles," by William Hanna Thompson, M. D., LL. D.; "The Women of Tomorrow," by William Hard.

Some of the articles in The American Magazine for January are: "The Things that are Caesar's," by Albert Jay Nock; "Interesting People: Owen Seaman, Dr. William A. Evans, William Trufant Foster, Mary McDowell, Klaw and Erlanger"; "The Measure of Human Grit," by Frank Barkley Copley; "The Mysteries and Cruelties of the Tariff," by Ida M. Tarbell; "The Progressive Hen and The Insurgent Ducklings," by William Allen White.

Dreer's Garden Book for 1911 is very interesting to everyone interested in gardening, horticulture or farming. This is the 73rd annual edition of this well known publication. It contains all needed information on growing vegetable, flowers, plants and shrubs, etc. There are many articles in the book written clearly and concisely by recognized horticultural authorities The book contains 288 pages, 1000 illustrations and 8 color and duotone plates. Any of our readers interested in gardening may obtain the book free by addressing Henry A. Dreer, 714 Chestnut Street, Philadelphia.

The leading feature in the January McClure's is the first of two articles on Mormons by Burton J. Hendrick. This article, "The Mormon Revival of Polygamy," describes the actual conditions existing among the Mormons. "Masters of Capital in America," by John Moody and George Kibbe Turner, deals with the career of E. H. Harriman and tells the story of railroad monopoly. An article on "The Lemon in the Tariff," by Samuel Hopkins Adsams, shows the inside workings of the tariff schedules and the way in which a monopoly was established in an article in which there would be a constant shortage. "A Visit to Tolstoy," by Jane Addams, is an interesting account of Tolstoy as he was seen by the famous philanthropist of Hull House.

The World Today is a necessity to the physician who wishes to be well informed on current events. The world's progress is given in such concise form in this magazine that it exactly supplies what the busy physician needs. Some of the articles in the January number are: "A Tribute to the First American," (illustrated) by Beverly Buchanan; "Keeping Home Ties From Breaking," by Edward F. Halsey; "Using the Schoolhouse Out of School Hours," (illustrated) by Anne Forsyth; "Agricultural Education in France," (illustrated) by Alvan F. Sanborn; "The Aviator," by James Montgomery, (illustrated) retold by Lucy France Pierce; "Studies in Insomnia," by William Tayler Marrs; "A Western Art Exhibition," (illustrated) by James Spencer Dickerson; "New Hope for the Man in Manacles," by Charles Ware; "Facts of Felony," by Benjamin Coombe; "The Commericial Value of a King," by Daniel Louis Hanson; "The Tercentenary of the English Bible," by J. M. Somerndike; "A Woman Mountaineer in the Tete Jaune Country" (illustrated) by Cy Warman; "The Last of the Shoguns," (with portrait) by Frederick Starr; "The Fruit Industry of the Northwest," (illustrated) by Sidney C. Miller; "Civic Instruction in Swimming," (illustrated) by James Cooke Mills; "The Chicago Hospital Day Association," (with portrait) by Lida Eastman Turbet.

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

Society news and reports and items of interest are gladly received.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

VOL. 14 JANUARY, 1911 No. 1

We have published a number of articles on socialism because it is a growing movement and comes close to the physician in a number of ways. We have carefully read several books on socialism but they have not converted us. The more we study socialism through socialist literature the less we think of it. We do not believe the socialists have the panacea for the ills of society. The socialists are somewhat like the mental healers. Because mental suggestion will relieve some functional disorders, all the various mental healers at once declare they can cure every disease but they cannot do it. Because socialism can be successfully applied to a limited number of public utilities the socialists declare they can conduct successfully every line of human activity, whether it be a municipality, a railroad, a manufactory, a store or the professions, but they cannot do it. The man who labors, is economical and saves, acquires capital. The man who spends his money in riotous living acquires nothing. The socialists consider capital a crime and give no encouragement for a man to save his money and acquire capital.

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Our profession is making rapid progress in the better and more successful treatment of disease. The physician who keeps abreast of the times is the most successful.

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The Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, Devoted to the Best Interests of the Whole Profession

Vol. XIV FEBRUARY, 1911 No 2

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 7 January Recorder)

When anatomy was studied in a few of its meager outlines merely, and for the most part in secret, there came forth a man named Monroe, in the city of Edinburgh, Scotland, where Benjamin Rush, Ephraim McDowell, Walter Brashear, David Hosack and Benjamin Dudley received their first medical training; and with a force of great eloquence, and a thorough mastery of what appeared at that time, all the details of anatomy, invested the dry bones with a little less fascination than the immortal Shakespeare did in clothing the cowardly assassin of Duncan. Monroe was so great in his style and manner of teaching that the Edinburgh school became for a time the leading school of the world. An ambitious physician, of that day, jealous of Monroe, built a hall at Edinburgh and established therein a "Museum of Anatomy." To his amphitheatre he invited students and practitioners to hear him lecture and demonstrate. He rattled the bones before his audience with so much energy, and spoke so eloquently, that he soon robbed the great university of all its students, at the time when anatomy was the subject. His boldness in exhibiting even the cadaver, for the purpose of demonstration, aroused great excitement, and he won great success. This was the beginning of demonstrative anatomy in the medical world.

In 1790, Dr. Rush said in a lecture: "Dr. Cullen, the illustrious physician, was the preceptor of many of us: he was moreover, a distinguished citizen of the republic of medicine, a benefactor of mankind: and although like the sun, he shone in a distant hemisphere, yet many of the rays of his knowledge have fallen upon this quarter of the globe. Dr. Cullen possessed a great and original genius in discerning the relation of distant truths, by the shortest train of intermediate propositions. His imaginations surveyed all nature at a glance, and like a camera obscura, seemed to produce in his mind a picture of the whole creation. His knowledge was minute in every branch of medicine: he was a great anatomist: an ingenious physiologist: he enlarged the boundaries and established the utility of chemistry: he stripped materia medica of most of its errors, which had been accumulating for two thousand years, and reduced it to a simple and practical science."

At the time Cullen made his appearance, the doctrines of Boerhave were universally prevalent. He believed that all disease depended upon some acrid principle, in particles, in the fluids of the body, and in a departure of these in point of consistency, from the natural State. He was a humoralist. Dr. Rush said: "Cullen's first object was, to expose the errors of this pathology, and to teach the public to seek the causes of diseases, in the solids." He further said of Cullen, that no man would ever unravel the operations, and the whole nature of the nervous system, without being forced to acknowledge that the foundation of his successful in-

quiries, was laid by the discoveries of Cullen. Pathies arose and flourished for the edification of imaginative people.

The few facts pertaining to every branch of medical education, except anatomy and botany, were so scattered as to defy every attempt to establish true principles, until finally Billings appeared; and the new pathology of Simon opened up new fields for speculative and experimental science. Dissections finally became the recognized part of college curriculum, and was openly announced a necessary part of the requirements of the best schools. Hunters' experimental knowledge about took hold of the medical world, when Jenner came as the apostle of a new creed, based upon the experience of humble dairy maids. Vaccination as a protective measure against smallpox remains an unexplained fact. Later, instruments of precision began to be employed. Vivisection of inferior animals were made, and the science of biology began to receive fresh attention; the humoral pathology, homeopathy, Thompsonianism, and all the isms and pathies paled into so many dim shadows over the fields of former conquests.

The medical students demanded demonstrations of theories, and illustrations of methods of practice, instead of the sophistry of the nature of disease, supported only on hypothesis.

In the pathological laboratory now which is an institution of comparatively recent date, you can study the nature and extent of those changes wrought by disease. Experimental research has at length brought to light the startling fact that nearly all diseases, and especially the contagious, arise from specific micro-organisms, which, although their life histories have been studied with great minuteness of detail yet they cannot be classified as animal or vegetable in their nature.

Micro-organisms, as the cause of about all the diseases, flesh is heir to, has certainly "gone to seed," when we find the following claim: "Campbell suggests that the unusual symptoms produced by medicine, usually simple in their action, may be due to the presence of bacteria in the medicine rather than to any idiosyncrasy in the patient using it." He gives the history of a patient who was made violently ill by using a mixture of quinine and whisky, which had been kept a month. Campbell claimed that "bacteria may grow in most medicines." Who has not had patients who can't take quinine because it produces fearful urticaria? That is purely an idiosyncrasy. Some persons can't stand whiskey because it invariably nauseates them. I guess the phagocytes eat up the bacteria! We are sure that microbes are destroyed in the gastric juice. I know an ex-steamboat captain, who said he had been drinking whiskey for sixty years, and swallowing all the ambier from chewing tobacco for fifteen years— and when I expressed surprise at such statement he replied that "he would be d—d if microbes would have any show in his stomach!" He lived to be 88 yearss old. He said he ate anything that was set before him, and drank the muddy water of the rivers for over forty years, and was never sick. How did he escape bacillus typhosis?

To take another line of thought, I would mention some of the discoveries and inventions which have added so much to accuracy in diagnosis, as well as accomplishing great things in the way of treatment of diseases. For instance the hypodermic injection was introduced by Wood about the middle of the 19th century, but it was a long time subsequent to that time before the present hypodermic syringe was used. It has not been as perfect as now, and so universally used but a comparatively short time. The indispensability of the hypodermatic method now makes us almost wonder how the old timers ever got along without it. Then the inhalers have been a wonderful boon. The oxygen gas in pulmonary diseases is but of recent use. The wonderful discoveries by which the

hypodermic needle can convey medicinal agents into the system, and not disturb the stomach or digestion. There is no procedure in practice more widely used and more highly valued.

Massage, Swedish movements, and electrical massage are wonderful advances in the system of therapeutics. Hydrotherapy used to be unknown as a remedial remedy in febrile diseases, but now it is more valuable in reducing bodily temperature, and invigorating as well as tranquilizing the nervous system, than any other agency.

It was not till 1884 that we had much of anything to relieve pain except alkaloids of opium, and chloral but now these agents are largely supplanted by others which have better analgisic effects, and obviate to danger of the morphine habit. Think of the crude and nauseous drugs we use to give in bolus or powder, before the days of capsules, tablets and triturates.

The study of the action of drugs on a rational basis has been pursued with extraordinary zeal and activity. The results have been marvelous. Medicines taste good now.

ELECTRO-THERAPEUTICS

By WILLIAM R. D. BLACKWOOD, M. D., Philadelphia, Pa.

(Continued from Page 11 January Recorder)

Now I will say something about tumors, and first as to common ones, such as the ovarian kind. I have handled many such in my time, and in a goodly number have saved them from laparotomies. I do not think that cystic ones are amenable to galvanism, but many solid ones are, and my method in these has been to compress it between the electrodes—one externally and the other in the vagina, either an insulated rod up to the end, or sometimes by needles thrust into the mass in the cul-de-sac. I have never tried the French method of running large pins into the mass through the abdominal surface—I am afraid of it, and also was careful with those where needles were inserted per vaginum, and I have not had trouble in any case yet. In treating a tumor of any kind you will require very strong currents, such as are practically corrosive, hence care must be taken. This plan also demands rigid antisepsis with all internal electrodes. I have in the past thirty-six years treated thirteen cases of undoubted extra-uterine pregnancy, one doubtful woman throwing off the bones almost completely, of the foetus a month after I treated her electrically. Although now-a-days laparotomy is the rule, in that time we did not open the abdomen so carelessly as now, and thus I had the chance of trying foeticide, believing that if the mass was killed it might not (actually in practice it did not), farther develop. I have reported all these cases at large in various journals, especially the Medical Bulletin and the Medical Times and Register of this city.

Urethral caruncle is a troublesome thing for a woman, and if seen early it can be cured by needle treatment with about six to ten milliamperes of galvanism, using cocaine of course locally.

In my last paper I spoke of how I had scarlet-fever, winding up with a few remarks on enlarged prostate and cystitis. This time I will talk a little about one of my army experiences in Kentucky, ending with reference to another disorder treatable by the current—sciatica, a very nasty thing to have, as you know if you were unlucky enough to suffer from it.

In September, 1863, my regiment, the "Miners" from Schuylkill county, Pennsylvania, marched from Lexington,

Kentucky, to Knoxville, Tennessee, and on the third day out we reached a small town called Harrodsville. The night was threatening rain, and I was sick for the first time during the war, so I felt like getting under cover if possible. I sent my striker out on a reconnaisance, and he returned saying he had found a nice old lady who said she would take me in. I went to her residence with another officer who was better satisfied indoors than out, no matter how the weather was looking. She met us with a smile, said she as an unreconstructed "rebel," but we were welcome, and she gave us a nice supper in true southern style. I slept well, and next morning had a fine breakfast and when ready to leave asked what my bill was. She was indignant, and told me that southern folks did not charge for hospitality. No argument moved her, so I tried to leave a ten dollar bill with old "Aunty," the colored housekeeper, who also was wrathy and said that if I left money under a plate as I wanted to do that the lady would send a messenger after me if he had to go a thousand miles to return it, so I had to render my thanks as the payment in full.

In 1878 one afternoon a gentleman called to see me professionally with a severe nervous disorder, a man with a florid face, a strong brogue, and an Irish name—Mr. Dennis McCafferty, from Spokane Falls. After a long talk I asked him how long he had been in this country.

He said, "Well, you think I am Irish, don't you?"

I replied, "No, I don't think so, I know you are from the old sod."

"Nixy," said he, "I'm an American, and you spent a night in the house wherein I was born in Harrodsville, Kentucky, during the Civil war."

I was somewhat astonished, but more so when he told me that both his mother and father, and his grandmother and grandfather on the female side had all been born in that house, which was there before Columbus discovered America, he thought, and so did I when he told me this strange narrative.

This patient got well, and was one of the best paying I ever had—he wanted to fix the fees and would have given me much more than my price. He took lessons in dancing from the maitre-de-ballet of the Great Opera House here of which I am medical director since its foundation more than fifty years ago, and he also went to some theatre every night, wanting to pay for my seat which costs me nothing as a member of the guild.

Sciatica can be handled much the same as the prostatic business—one pole in the rectum or on the sciatic notch, the other run up and down over the nerve trunk. I like hypodermics of chloroform deeply injected at several points along the trunk, with strychnia, codeia, and acetanilid guarded by ammonium carbonate and cactina, enough to lower pain once or twice daily. Lumbago is well managed by galvanism over the affected regions, and use high currents daily, followed by faradism as strong as the person can stand. A liniment of camphor, chloral, acetanilid, and a little oil of cloves does well in backaches of this nature and is good anywhere, but look out for the eyes if used on the face in tic or toothaches.

SCIENTIFIC MEDICATION

By GEORGE L. SERVOSS, M. D., Fairview, Nevada

Is there such a thing as scientific medication? Many of our best authorities and writers of text-books upon the subject of principles and practice of medicine argue that medicine is still in an empiric stage and will remain so for some time to come. If wholly empiric and a matter of guess-work it stands to reason that internal medicine is not scientific and probably never will become so. On the other hand, we find a class of men who have made the observation of drug action, clinically, a matter of profound study and these men argue that when given certain indications, the application of certain drugs brings about relief. If the latter findings are correct, and there is every reason to believe that they are, then there is much of a scientific nature in the application of medicine internally.

As a rule, our scools have been weak in the teaching of materia medica and our students have been turned away from their alma maters with a very inferior knowledge of the tools given them to combat disease. The materia medica department of almost every school has been considered one of secondary importance and much more attention has been paid to the pathology and diagnosis of disease than to the treatment. The chairs of the principles and practice of both medicine and surgery are invaribly presided over by men of wide experience, while that of materia medica is not infrequently given over to the care of a recent graduate who has had little, if any, actual experience in the practical application of drugs, or other remedial agents. Such being the case, it naturally follows that the teachings in this, which should be an important department frequently falls below the level which they should occupy.

Many of our best teachers of the principles and practice of medicine, after spending hours discussing pathology and diagnosis, give but a few moments to consideration of remedies applicable to the condition under discussion at the time and not infrequently do they advise the use of set formulas in all cases of a like condition. These men do not take into consideration the fact that but very few cases exhibit classic symptoms and that we frequently find that set formulas fall short of meeting the indications. Such men treat the name, rather than the indications and because of the fact that they do not obtain anticipated results insist that internal medication is unscientific.

In the second class mentioned we find that the majority of these observers are not connected with any educational institution and farther, that they are men who are obliged to rely on their own personal findings in determining the worth of their therapeutic agents. These men, instead of employing set formulas in every instance, study well the symptoms and indications as they become apparent and base their plan of treatment upon such observations, regardless of what the authorities may have to offer upon the subject. Such men have found that most of the acute infections may be aborted, and that absolutely none of them are limited to any particular time of procedure, and this in spite of the teachings of some of our highest authorities. These men who study drugs and their actions and applications from clinical standpoint insist that internal medicine is scientific and that drugs do have an effect in overcoming and correcting pathologic conditions.

Much of the inefficiency of drugs has undoubtedly been due to the manner in which they have been employed. Until within very recent years but little attention has been given to the application of single drugs to meet single indications

and drug application has been a matter of anything than simplicity. Not only have compounds containing numerous drugs been employed, but complex plant drugs in their entirety have been used. In both instances much of an inhibitory nature has been introduced and the drugs have been pronounced worthless because of the fact that absolute results have failed to obtain. Within recent years we find thaat an attempt has been made to simplify the application of remedial agents. Very few long and intricate formulas are now employed and the complex whole drug is rapidly falling into disrepute as a scientific therapeutic agent. It has been found that the isolated active principles, separated from the other component portions of the plant drugs, when administered in accordance with the indications give absolute and unvarying results. It has been said by some that the active principles do not give all of the actions of the parent drug, and in many instances this is undoubtedly true. Morphine does not give all of the actions of opium simply because of the fact that this alkaloid is wholly narcotic in effect, while the parent drug carries a certain percentage of convulsant and tetanic principles, while either may predominate, or inhibit the morphine action. Gelsemium offers another example, in that it carries two active principles, one of which is sedative and the other excitant in effect. We can go through the entire list of plant drugs and find example after example of like sort, and such examples give us a basis for insisting that the applications of whole plant drugs and their preparations, are unscientific in the majority of instances.

Some of our authorities have said that internal medication was unscientific because of the fact that laboratory experiments upon healthy animals frequently showed no results, whatsoever. Others, employed the same drugs in the treatment of sick humans and found them active and productive of satisfactory results and in consequence pronounced their use scientific. From these findings, both pro and con, we would reach the conclusion that the former is very unfair and the latter very fair in the establishment of the worth of remedial agents. It is not fair to suppose that a drug will have the same action upon a healthy animal as it would upon one in ill health, as it is a recognized fact that, although a therapeutic dose of aconitine will lower the temperature of the sick, it has but little, if any, such effect when given to the healthy man. This being likewise true of many other drugs, it stands to reason that the inactivity of a drug in health is no criterion upon which to base argument against its use in sickness, or to say that such employment is unscientific. Cactus has been pronounced absolutely worthless by those who have made laboratory experiments with it upon healthy animals and the men making such tests have said that its application was unscientific in the extreme, but hundreds of practicians, through clinical application, when indicated, have found this drug and its active principle to be very materially active and have pronounced it a useful agent and its application scientific.

It is apparent from the foregoing that much of the argument against the use of drugs and the insistence that their application is unscientific, is based very largely upon the ignorance of the men making such arguments, and not through individual worthlessness of the drugs themselves. Many of the men advancing such arguments are not doing a general practice and in consequence have but little opportunity to observe drug action from a practical standpoint and rely almost wholly upon laboratory findings. As a rule it will be found that these men do a consultation practice and that they are called upon to substantiate diagnosis rather than to suggest treatment and that, as a rule, they see the patient but once or

twice and do not observe all of the different changes of condition taking place throughout the course of the disease. They are not called upon to meet the indications as they arise and consequently have but little practice in this direction. Men of this character occupy the same position in the medical world as do the architects in the constructive world. They furnish the ideas, but the active practitioners, like the carpenters, carry them out. The architect gives a general idea of what is wanted in a building but leaves the practical work to the masons, steel and wood workers. The consultant in medicine estblishes a diagnosis, but the general practician institutes and carries on the plan of treatment. Consequntly the latter should be the man to pronounce upon the worth or worthlessness of his therapeutic agents.

The chair of materia medica should be made as prominent in our schools as are those of medicine and surgery and it should be filled by men of experience in the application of drugs. When such a change is brought about drug medication will be recognized as scientific, due to the advanced knowledge of the subject. The medical student should be trained as well, clinically, in applied therapeutics as in surgery, if not better. Surgery, as a rule, constitutes less than 25 per cent. of the work of the average practician and consequently is of less importance than internal medicine. In the majority of instances, surgical cases, if of any magnitude are turned over to the specialist in that line, regardless of the fact that the student is obliged to pay more attention to surgical clinics than medical. By increasing the didactic instruction of materia medica and clinical observation of the application of therapeutic agents during the undergraduate days, it will be found that our students will enter practice much better prepared to cope with disease and with less idea that medicine as a whole is unscientific.

DIPHTHERIA

By R. J. SMITH, M. D., Logan, Utah

The only treatment worthy of consideration is the early administration of antitoxin in sufficiently large doses.

That is a statement made by many physicians and is the acknowledged belief of a great majority of the laity.

But antitoxin should not be depended on to the exclusion of all other treatment. Given early in the disease, it is usually successful in controlling the disease and little else is necessary. Failure results in some cases if antitoxin is administered too late in the disease or in too small amounts. The patient's temperature will show the need for a repetition of the dose, falling if sufficient has been given in eight to tweleve hours and becoming normal in forty-eight hours. If no improvement occurs, the initial dose should be at least 4000 units and in laryngeal cases at least 10000 units. Intubation may be necessary until the membrane is extruded.

To prevent heart complications, rest in bed for about three weeks is imperative, with attention to the condition of the bowel contents.

If the stool is malodorous, the sulphocarbolates should be given in sufficient doses to control fever after a thorough cleaning out with some saline laxative. If the heart is slowed, it may be necessary to administer atropine to produce capillary flushing. If too fast, it may be slowed by ice to the precordium, and vascular sedatives, as aconitine amorphous, veratrine. For vascular failure, glonoin, atropine, ergot, external application of heat should be employed.

The heart must be watched carefully from the beginning and the patient restrained from sitting up for any purpose for at least three weeks. Exertion mental strain or fatigue should be guarded against for some time longer.

McClintock and King in the Journal of Infectious Diseases advise the giving of antitoxin for prophylactic purposes orally, giving it on an empty stomach, first neutralizing stomach acidity with 1 per cent solution of sodium bicarbonate. For curative purposes, however, the hypodermic method is not to be replaced.

In the alleviation of the discomfort resulting from the urticarial rashes sometimes met with after antitoxin, the use of calcium chloride or calcium lactate will invariably bring relief. The dose is 5 to 15 grains every two or three hours. In some cases, dyspnea is complained of and here also calcium lactate is indicated. If severe, atropine may be given either alone or with a small dose of morphine.

While advising the early and frequent use of antitoxin, local hygiene of the fauces and nares is highly important. For this purpose in older children and adults, Loefflers solution of toluol and menthol is extremely valuable and should follow thorough cleansing by such agents as hydrogen peroxide, alkaline washes, etc.

The membrane which persists after all other symptoms of the disease have receded, may be removed with solution of lactic acid, 25 per cent., or by means of frequent applications of turpentine by swab, taking care that only the membrane receive the application.

One of the most important remedies in cases of diphtheria is an active preparation of calx sulphurata, calcium sulfid. It should be given in doses sufficient to saturate the system rapidly, or until the breath and perspiration smell of the drug. Continue it in smaller dosage until the disease is eradicated.

Strychnine may be indicated for paralytic symptoms. It has been suggested that the administration of antitoxin would be of benefit even after paralysis had occurred.

Idiosyncrasy may produce severe symptoms with sudden death after an injection of antitoxin. This is the condition of anaphylaxis and usually occurs in those cases where several days have elapsed between injections. It is possible also that the cells of the body elaborate sufficient antitoxin to hold the disease in check, and then a large dose of prepared antitoxin is thrown suddenly into the circulation and anaphylaxis results. If a case seems to have reached its acme of severity, the membrane ceasing to spread, and all the symptoms point to a favorable conclusion, it may be as well to treat expectantly without antitoxin especially if the case is not seen until the third or fourth day of the attack, or to inject only a very small dose to determine reaction, waiting an hour or longer for any anaphylaxis symptoms to develop.

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VARIOUS TOPICS.

By J. A. Burnett, M. D.

Iodoform can be deodorized by the use of coffee, tonka bean or vanilla.

Lithium bromide contains more bromine than any bromide.

Stearic acid is used in making suppositories because it forms with sal soda the hardest soap known permitting 95 per cent. of glycerin mixed and yet retains the solid form.

To ascertain if water is fit for drinking and pharmaceutical purposes see that it is colorless and odorless when heated to the boiling point and remains this way upon the addition of sulphide of ammonia or sulphide of hydrogen and if acidulated with sulphuric acid and a mixture colored with potassium permanganate to a rose tint must not be totally destroyed by boiling for five minutes.

THERAPEUTIC BRIEFS

By W. C. ABBOTT, M. D., Chicogo, Ill.

In preparing material for physicians in active practice it is not necessary to copy stock matter from the text-books. Sometimes we see a twenty-page article in the journals, of ponderous gravity, nineteen and one-half being occupied with data every doctor knows well or can obtain by referring to his bookcase—the last two lines gives the treatment.

It might be well to ask how many useful ideas or hints can be expressed in a page? Here are some notes—the reader may supply the filling.

The pulse. As a rule the pulse rate is inversely to the force. The heart quickly exhausts itself when driven beyond measure. Other muscles have periods of repose, but not the heart, for even the diastole is active. The young often abuse their powers. Whenever the pulse passes the mean it should be restrained, at once, moderating the rate and tonifying the force. Great losses of blood accelerate the pulse, which is one cause of overheating the blood, not mechanically but because its venosity is augmented in congesting the tissues, and venous blood is 1°C. hotter than arterial blood. A man fell from a height, wounding the head and elbow, with fracture and arthritis. Despite the antiplogistics the skin remained hot and dry, the pulse rapid. Fearing pyemia he was given digitalin, hyoscyamine, phosphoric acid and strychnine; the object being to bring down the pulse and heat, to dissipate the spasm, and relieve the nervous system from its state of stupor. The result was all that was hoped.

The condition of the physician and consequently his satisfaction with himself increase in proportion to the increase of his patients' confidence. It is by seeing him so powerless that their liberality has descended in like manner. Cure, my dear confreres, and you will be considered—and paid. (Burggraeve.)

Among the perfected weapons of medical chemistry Burggraeve first had the happy audacity to choose the surest and those with longest range; and to teach us how to manage them without fear and without danger. (Prevault.)

Many doctors await the result from afar—and these are doubtless prudent and wise; but what would happen if nobody was intrepid enough to act as advance guard?

Please gentlemen, less science and more art. (Semmola.)

Nothing is as baleful in medicine as routine. Without incessant renovation medical science remains always behind. (Sebastian.)

In New Orleans patients are almost always asthenic. If the disease does not kill them the treatment does. There is another method that does not kill, but allows them to die without aid—homeopathy. (Escoubas.)

Sodium salicylate given a woman four months pregnant, for gouty rheumatism, induced metrorrhagia, ceasing only when the remedy was stopped. Similar hemorrhage appeared in a non-pregnant woman after over-doses of the salicylate.

Bremond, by a series of experiments conducted with admirable care, determined that vapors containing potassium iodide were absorbed by the skin only when the temperature was raised above the human normal point and the sebaceous covering of the skin was dissolved.

Reveil detected iodine in the urine of persons who had taken a foot-bath in an iodide solution. Here absorption took place through the soles of the feet, which have no protective sebaceous glands. Herbert denied that medicinal substances were absorbed through the

skin unless the epidermis was destroyed. But Nomius had a case of a man who lay down to sleep on tobacco leaves, the skin was wet with sweat, and poisoning from the tobacco occurred.

Calcium Sulphide: As an expectorant this is indicated to facilitate the mucous secretion of the pharynx and bronchi. It also induces sweating and diuresis, by the latter channel eliminating the products of sulphur oxidation and depurating the blood. (Valledor.)

After an injection of pilocarpine, ten to twenty milligrams, in three to four minutes the face reddens, a sense of heat follows, and the mouth fills with saliva.

There is gradually dawning upon my consciousness the astounding conviction that the medical profession as a body does not know how to prescribe drugs, or to recognize their effects on the human body in disease.

There are few remedies with which that marvelous agent, calcium sulphide, can be compared.

The strychnine of commerce often contains the sulphates of lime and magnesia, starch, etc. It is the same with veratrine. To prepare aconitine, cultivated plants are employed instead of the wild. Cicutine is often an amorphous extract from plants more or less worthless, of several species. Hence the uncertainty of action with medicants termed heroic. Granules of digitalin are made without any digitalin, and different products are known as 'digitalin' French, German and English. In a word there is not in commerce anything more requiring caution than drugs. ((Burggraeve.)

To a consumptive, subject of very intense intercostal pains, I gave two milligrams of cicutine, one-half hour apart, and the pains ceased. (Martinez.)

One-fourth milligram of atropine per night lessened extraordinarily the sweats of a physical case. (Martinez.)

For many uses aconitine and veratrine amply replace calomel, affording its use without its dangers.

Among the most important uses of camphor monobromide are the ataxic affections where camphor and musk have been employed. The camphor salt is useful as a sedative and refresher; it dissipates dryness of the skin and the fuliginosities of typhus, and acts well in adyamic pneumonia to prevent the pulmonary tissue becoming gangrenous. This indication may appear in genital affections, where phagedena threatens, in gouorrhea or in cystitis. The average adult dose is a centigram every hour.

Persons on restricted diet or badly nourished, even if of robust constitution, are more sensitive to the action of defervescents. (Martinez.)

The eruptive fevers are more resistant than others to the action of the defervescent alkaloids. (Martinez.)

Fevers give way to the defervescent alkaloids more readily after they have endured for some days. (Martinez.)

In a boy of two years, an infantile cholera improved in twenty-four hours under brucine and hyoscyamine, and ceased within two and one-half days. (Martinez.)

At times hyoscyamine arouses a sense of constriction of the throat so intense as to preclude the further use of this remedy. In such a case give small doses.

Quinine hydroferrocyanide is a precious antiperiodic in the treatment of children. (Martinez.)

Atropine is bitter; its first evident effect is dryness of the mouth; the granules should be swallowed whole.

Asparagin:—Taste bitter, fresh, piquant; followed by slight constriction of the throat. Should be chewed.

Aconitine, the arsenates, benzoates, bromides, mercury biniodide, cicutine, colchicine, zinc cyanide, colocynthin, digitalin, antimony, strychnine, santonin and veratrine:—these granules

should be swallowed whole, neither chewed nor dissolved. (Burggraeve.)

Phosphoric acid, benzoic acid, calomel, codeine, cubebin, caffeine, emetine, manganese iodide, iodoform, jalapin, kermes, pepsin, calcium hypophosphite and phosphate, quassin; of these the granules should be chewed. Iron phosphate should be given in the food. (Burggraeve.)

Euonymin, leptandrin, lycopin, iridin, have a warm piquant taste, with slight astriction of the lips and tongue, extending successively to the pharynx and provoking the movements of swallowing. Cocaine does this also and leaves a piquant savor in the mouth. (Burggraeve.)

Atropine valerianate does not cause constriction and dryness of the throat, and consequently should replace other atropine salts and hyoscyamine as antispasmodics when this effect is manifested. (Burggraeve.)

Attacked by his customary coryza, Burggraeve took three granules of veratrine at two-hour intervals, inducing evident physiologic action and jugulating the attack.

Morphine Hydrobromide. Andriere tells of a man who stopped drinking after repeated delirium tremens, but suffered from cardiac troubles and insomnia, persisting three or four days. Morphine hydrobromide gram 0.05 cured him promptly, after 0.20 to 0.30 extract opium failed. Andriere advises morphine hyrobromide in all cases of nervous erethism, insomnia, agitation, pain and spasm. For the last he adds hyoscyamine and quinine whenever intermittence can be detected.

This is a very bad practice. With gelseminine, solanine, cicutine and hyoscyamine at hand, there is no need for any opium derivative, let alone the enormous dose of nearly one grain of morphine. Modern medical art is not satisfied with relieving a symptom, and this too often is merely smothering nature's protest against a physiologic wrong. The nervous phenomena mentioned are caused by toxemia and indicate a cerebral irritation that demands removal of the irritant. Sleep will come and must come, when the obstacle is removed. How very frequently the cause of insomnia and nervous unrest is forced upon our attention by the patient's bad breath!

How easy is the practice of medicine when one begins right and clears away the cause of the physiologic jangle.

MENINGITIS

By JOHN AULDE, M. D., Philadelphia

Extracts from manuscript of a proposed book entitled, "The Chemical Problem in Nutrition."

Literally, meningitis is an inflammation of the meninges, or membranes of the brain or the spinal cord, and is associated with or dependent upon the presence—in the body fluids—of a pathogenic micro-organism (coccus infection), the diplococcus menigitidis capsulatus of Weichselbaum, the discoverer. When both the brain and the cord are involved, it is cerebro-spinal meningitis, popularly known as "spotted fever," although the spots are not always in evidence. The spots are simply external, or local symptoms of the constitutional invasion, with a tendency to suppuration.

Like all inflammations accompanied by infection, the congestion of the vessels leads to effusion of serum with pus formation and possibly hemorrhages. In addition, there is liable to be more or less degeneration of the adjacent nerve structures. The spots, therefore, must be regarded as indicating a vicarious effort of nature to eliminate the poison through the skin.

Special attention should be directed here to the condition of the spinal fluid —it is acid in reaction, while under normal conditions it is alkaline or neutral. This chemical deviation is doubless the most important factor demanding treatment, for so long as this abnormal condition persists, no possible benefit can be secured from medication. Besides the tendency to pus formation, there is the constant lime depletion with consecutive production or development of magnesium nucleo-proteids, utterly lacking in the capacity for imbibition (absorption); hence, the progressive character of the malady — and the high death rate. Notwithstanding the logical and fundamental character of this deduction, it is a notable fact that the plan here advocated has received but scant consideration at the hands of the profession. The main dependence, according to the text-books and current medical literature, apears to be, morphine or some similar anodyne, to relieve pain, coal-tar derivatives for elevation of temperature, salicylates for neuralgic symptoms, with calomel and magnesium sulphate or citrate for the bowels, none of which are curative, while morphine and magnesium are positively harmful.

For example, by means of lumbar puncture, to relieve pressure in the spinal canal, it has been found that as the disease advances, the acidity of the spinal fluid increases, and this progressive, abnormal condition foreshadows a fatal termination. The employment of anodynes under such circumstances is unwise, for the reason that they arrest or destroy function; they inhibit the cellular activities by obtunding sensation, thus permitting the retrograde changes, or decomposition, to proceed without interruption. The internal use of magnesia in any form can not be otherthan injurious, because it drains from the blood its most valuable antiseptic properties, and besides, it unites chemically with the colloid nerve structures to impede, hinder or destroy the capacity for the transmission of impulses, so that suppuration runs riot. In fact, instances are on record where pus formation had occurred before death, in the lower segment of the cord, while the upper portion was apparently normal in appearance, but acid in reaction.

Added to this unfortunate contretemps, we must consider the infection the causative factor in the disease, although not the paramount or dominant factor in treatment. A critical study of the chemical problem in this disease shows beyond question the subordinate position occupied by the diplococcus, because of the associated acid excess, the magnesium infiltration, together with the general tissue degeneration involving the entire system—a constitutional invasion. Nevertheless, direct treatment should be conducted for the purpose of modifying the virulence of the infection, while collateral treatment equally important, should aim to accomplish certain definite and distinct objects, namely,

(1) Neutralization of acid excess—by means of remedies which, while restoring the normal alkalinity of the blood, will also augment its bactericidal properties, to the end that it will measurably neutralize the circulating toxins;

(2) Counteract pus formation, by the use of remedies which have proven effective in arresting suppuration in other infections;

(3) Promote magnesium dissociation, by overcoming simple replacement, according to the law of mass action, or by disintegration through the action of chemical agents which act upon the organic constituents of the new compounds, resulting from the union of magnesium oxide (calcined magnesia), with the colloids of the nerve structures.

Thus, we may tabulate the outline of

a rational and scientific plan of treatment for meningitis and cerebro-spinal fever, considered from the viewpoint of present day pathology, as follows:

TREATMENT OF CEREBRO-SPINAL FEVER

(SCHEMA)

I.	DIRECT:	Anti-streptococcus Serum Bacterins. Multitoxine.
II.	COLLATERAL:	Alkaline-saline. Nucalcide. Calcium Carbonate or Calcium Iodide.
III.	SYMPTOMATIC:	Fever. Headache. Pain. Constipation.
IV.	GENERAL:	Diet and Hygiene— Inunctions, Massage, Baths, Electricity, Oxygen enemata

It will be observed that the above schema makes no special provision for the reduction of fever, one of the most alarming symptoms of the disorder—because elevation of temperature is but a symptom, such for instance, as we have in the case of boils, carbuncles, and abscess. It is characteristic of infective inflamation, and since cerebrospinal fever involves the central nervous system, it is but reasonable to regard it as more serious in its manifestations than when the periphery is similarly affected.

The following extracts (Transactions Luzerne County Medical Society, Dec. 31, 1905, Vol. XIII.) from reporte of cases which occurred during an epidemic in Central Pennsylvania some years ago, apparently confirm this claim. when the patients are seen in the first stage of the disease.

"Case XVII. Louise H., American, aged 19. Anaemic. Worked in hose factory all day Wednesday. Attended a ball Wednesday night. Retired after midnight. At two o'clock called mother on account of headache. Vomited bilious matter. At daylight, Thursday morning. mother found her dull and listless and still sick at stomach; she aroused her and tried to have her walk down stairs. She fell in a heap and had to be carried to bed.

I saw her at 8 A. M., six hours after initial symptoms. Temperature 101° F. Occasional vomiting. Gave at once thirty minims multitoxine. She received five such doses at intervals of four hours during the first day.

When first injection of multitoxine was given, she apparently did not feel the pain, which is always marked. She was perfectly unconscious all day until 5 P. M., when, during multitoxine hypodermic, she raised up and gave me that characteristic vacant stare and attempted to mumble some words. Her temperature at this time was 104° F., in the axilla.

During the whole day her pupils reacted slowly to light. Head retracted. and when forcibly bent forward, her countenance portrayed pain.

Kernig's test brought on convulsive movements, and it was impossible to extend legs while in that position. A laxative had been given, and after the first bowel movement, vomiting had ceased. When seen at 10 P. M., was still partially comatose, but would, when aroused, intelligently answer simple questions.

When seen Friday morning, the beginning of the second day of sickness, her condition was flattering. She had normal temperature, normal pupils, pulse accelerated, but still good. She held the thermometer unassisted, in mouth, noticed everything and even smiled at some little pleasantries. Did not remember any occurrences of previous day, after her enforced attempt to walk down stairs. The usual movements still elicited pain.

This was only a lull before the storm, which came at 10 A. M.: she became very restless, gave hydrocephalic cries, relapsed into a state of complete coma with ascending temperature. During the night it was almost impossible to keep her in bed; complete opisthotonos with arched belly. This condition gave way to one of complete paralysis, which occurred towards morning. When seen at 6 A. M., Saturday, her condition was markedly apoplectic. Slow, deep respirations; all sensation and motion

gone. Pupils contracted; slight twitching of eyelids; no other reactions. Temperature 110° F.

The multitoxine had been continuously given, also sodium salicylate when she could swallow. As the symptoms were so distinctly indicative of pressure I was tempted to perform lumbar puncture, but as she had no convulsions to send up the temperature, which high point could only be explained by a complete systemic invasion, I did not feel like wasting my time. At noon her temperature reached 112° F. The respirations at that time remained slow, but shallow. The pulse at wrist was gone, but heart was still beating. She died at 1 P. M., Saturday, sixty hours after invasion of disease."

"Case XIX. Louis R., Polish, aged 5. During night complained of pain in stomach, but no vomiting. Very restless, complained of pain in head and general myalgia. In morning was found unconscious. Examined him in consultation at 1 P. M. I fully concurred in the diagnosis. He was totally unconscious, involuntary discharges of the urine. Rolled around the bed until he assumed the at-rest position of cerebrospinal meningitis, i. e., retracted head and flexed knees.

This position is so typical, that when I glance at a supposed case for the first time, I immediately jump at conclusions and begin corroborative tests. His temperature was 101° F. Upon overcoming rigidity and forcibly flexing his head on chest, his contorted facial expression gave evidence of pain, and he twisted out of my grasp, but uttered no sounds. Likewise, upon application of Kernig's sciatic test, he would squirm back into his favorable position.

Aulde's ideal multitoxine treatment had already been instituted—thirty minim hypodermics of multitoxine every four hours, bicarbonate of potash until saliva alkaline, nucalcide to overcome formation of pus.

"The following morning a marked change had taken place. Boy was perfectly conscious, and although he did not care to answer questions, would do so if hard pressed. Tongue very flabby and anaemic looking with heavy coating. All indications pointed to a decided infection. Pulse and temperature normal. Assumed an air as if he wished to be left alone. Bowels had been moved by an enema. However, reflex symptoms persisted.

"Treatment continued with a laxative added and alternate hypodermic of multitoxine and nuclein. Next morning bowels had moved. Temperature 99° F. Mind somewhat clearer; takes liquid diet; tenderness of nucha and Kernig's symptoms persisted.

"Injections of multitoxine suspended. Nuclein continued. Today he is about in the same condition. Rigidity of nucha with retracted head and marked rigidity of legs, and cries with pain upon attempting Kernig's test.

"When indicated, the nerve sedatives must be used to induce rest. I find that heroin acts well in the case of children. Salicylate of soda controls peripheral myalgia. Multitoxine, although used but twice, would seem to have a beneficial effect, as in both cases, the patients rallied from a comatose state in twenty-four hours' time, the one relapsing, the other on the road to apparent recovery.

In attempting to carry out my plan of treatment in these cases almost entire dependence was placed upon multitoxine injections, the demand for medication to neutralize acid excess being disregarded. While potassium bicarbonate was employed in case XIX with apparent benefit, this salt is undesirable, from the fact that all potassium salts are poisonous at the points of elimination. Moreover, nucalcide, an alkali, the pus-arrester, was omitted in case XVII, going to show the special value and paramount importance of maintaining as far as possible the normal alkalinity of the body fluids in our

warfare against infective inflammation. In truth, attention to this detail precludes the necessity for anodynes, antipyretics, antiseptics, sedatives—and laxatives, because it restores the normal cellular activities, promotes oxidation and favors elimination. Of course, the utility of the sulphides in controlling bacterial invasion and thus lessening the tendency to systemic infection should never be overlooked, and this brings us back to the original premise, that the diplococcus is but a subordinate factor in the treatment of cerebrospinal fever.

Secondary infection has purposely been omitted, for the reason that the plan as outlined takes this formidable obstacle into consideration. When it is stated that the line of treatment described excludes secondary fever in smallpox, and prevents pitting, the evidence is not only sufficient—it is overwhelming.

We come now to the most interesting part of the problem—the effects upon the patient as a result of magnesium infiltration, a rather intricate problem to be sure but not beyond the reach of scientific research and clinical investigation. Of course, in the absence of laboratory studies, it will appear fool-hardy in the extreme to set up an abstract proposition as a scientific fact, but clinical facts are noted long before scientific facts are available. So, in this instance, we start with the known clinical evidence and work backwards.

Thus, we know that many of the unfavorable sequelae in other cases of septic infection, deafness, blindness, lymphadenitis, ulcerations, lameness and paralyses are greatly mitigated, and frequently entirely relieved by medication based upon this physico-chemical proposition. Moreover, it is easily within the range of any physician of ordinary intelligence to hasten convalescense by compliance with these reasonable and simple instructions, directed specifically and solely against a suppositious or imaginary chemical defect which is amenable to no other line of treatment.

That the deductions are new and novel does not disprove a demonstrable fact; that these peculiar, chemical deviations are not mentioned in modern text-books merely shows that their authors are not omniscient; and those who await ex-cathedra endorsement will doubtless find their progress somewhat devious and circuitous, inasmuch as a discovery of such far reaching significance should have been imported—"Made in Germany."

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BRIEFS.

By J. A. Burnett, M. D., Little Rock, Ark.

The strongest alkalies are the hydrates or hydroxides of potassium, sodium and ammonia.

Sugar is used with iron preparation to prevent oxidation.

Starch can be dissolved with a concentrated solution of zinc chloride or calcium chloride.

Burning sulphur dioxide (SO_2) a pungent suffocating gas destructive to organic life. For disinfectant purposes three pounds of sulphur should be burned for each 1000 cubic feet of air and the room should be closed for several hours.

Glucosides differ from alkaloids in that they are second to alkaloids in efficiency not crystallizable nor form bases for salts.

A good liniment for stimulating and anodyne purpose in painful condition is

℞ Camphor ..... ℥j
Chloroform ..... ℥ij
Olive oil ..... ℥ij
M. Sig. Apply locally.

THE BACK DOOR

By E. P. S. MILLER, M. D., Chicago, Ill.

The young doctor with his wife and baby lived in a queer place. Dr. Wiseman himself called it a "Perpendicular flat." It was the rear portion of a combined store and flat building on the West side of Chicago. The doctor's quarters consisted of three floors and a low, dark and dingy cellar. On the top floor was a bedroom, a closet, a laundry room and a combined kitchen and dining room which Mrs. Wiseman facetiously termed the "Chop house." On the second floor was a small bath-room and a large, well lighted apartment which held a large bed, the baby's crib, a dresser, trunk and wash-stand and had plenty of room left for the stove, the sewing machine and the baby's playthings scattered over the floor. This room Mrs. Wiseman generously called the "Drawing room."

The first floor had a neat hall with doors opening into the street on the East, the reception room on the North and the private office on the West. The The rooms were well arranged for a physician's use, as a patient could be received in the reception room, and after consultation in the private office, could retire by way of the hall without having to pass in front of any other patients who should happen to be waiting in the reception room. Sometimes an unusually modest and retiring patient would be seen to enter the front door and never come out of it again. Nothing serious had happened; the tactful doctor had allowed her to go out of the back door where she found a pathway of flat, circular stepping stones, which led through a muddy back yard to the alley and also to the garbage tank, the latter of which forms an important link in the chain of events which we are about to record.

Doctor Wiseman despised bolts and locks and often wished that he had been born an original Japanese citizen, living where bars and keys were unknown. But Mrs. Wiseman was rather nervous on the subject of having the house thoroughly locked at night. Sometimes a door might be left unlocked or a window catch remain unfastened, but if she only thought they were locked she would sleep the night through in calm and blissful ignorance. Should she waken in the night, haunted by the slightest shadow of a fear that any door was unlocked, it was seldom that the doctor escaped a chilly journey downstairs. When he returned he was called on to protest most emphatically that locking orders had been most implicitly obeyed.

The front door of the hall had a spring lock, and the West door at the end of the hall was always kept closed from the inside of the private office by a hook. There was no lock on the door opening to the cellar steps. To the right of this and opening into a passageway was the troublesome back door, the subject of our story. It had an ordinary, mortise lock with a key of the commonest, uncomplicated pattern. A thief could have easily put a tool into the key-hole from the outside and turned the key in the door with little difficulty. However, a chain and hook of modern fashion would have allowed him to open the door only a few inches and would certainly have prevented any hurried entrance.

As Doctor Wiseman was not rich he did his own janitor work for the three floors and his trips to the ash can and the garbage tank were often more numerous than he desired. It is little to be wondered at that he did not always remember to turn the key which he constantly left in the lock of the back door, although he thereby caused his wife a great deal of needless anxiety.

Late one Sunday evening in April, after the baby had retired—perhaps it would be nearer the truth to say he had "been retired," for he was always reluctant to be placed in his crib and

would fall asleep in his chair protesting he wasn't the least bit sleepy—Mrs. Wiseman was reading a newspaper account of the kidnapping of a little child with all the heart-rending details usually worked into a report of that kind. The doctor, worn by a day of hard and profitless work was preparing to retire when his wife suddenly dropped her paper on the floor of the "Drawing room," and spoke to him hurriedly:

"George," she inquired earnestly, "is the back door locked?"

"Oh, these women!" thought the tired and sleepy physician. "Why can't they think of things at the right time? Here I am, just ready to get into bed and there has been no fire in the back office all day. It must be like a cold storage box and besides, I don't remember whether I locked that door or not."

Doctor Wiseman was certainly tempted to prevaricate but casting aside all diplomacy he manfully stood by his guns and replied unflinchingly, "Really, Mary, I do not know."

"Wel, then," she said, almost breathlessly, "go right down and see. Ever since that little White girl was kidnapped I have feared for our little Henry. You know it would be the easiest thing in the world for anyone to come in that back door, sneak up here and steal our darling.

Doctor Wiseman made no reply, but putting on a pair of moccasins, a long house coat and an old slouch hat, hurried downstairs in the dark, examined the locks, which he found tightly closed, bruised his left shin against an unseen coal bucket and returned to the "Drawing room" on the second floor, assuring his wife in a slightly irritated tone that the draw-bridge had been raised and the castle was secure against all invaders.

Monday evening, as they were reading aloud a gruesome detective story, something in their reading reminded the doctor's wife of the back door. Again she asked, "George, are you sure that back door is locked?" The doctor was partly amused, partly bored by the inquiry. That lock would not keep out a professional burglar, he was certain, but he replied cautiously and diplomatically:

"Mary dear, my impression is that the door is locked. So strong is the impression that I am willing to retire without descending to the lower regions to make the examination."

"Well, I am not too sure of the strength of your impression," replied his wife in a rather positive tone of voice. "I'm going down there to see for myself and you are going with me, too."

There was nothing for him to do but to go downstairs with her and much to his discomfiture, the back door was unlocked and the chain was not even hooked in its place. Alas for the "strong impression!" Its strength vanished into mere nothingness. The doctor determined that the next evening he would lock the doors at a certain time and make a note of it, watch in hand, as if he were recording the pulse and temperature of a patient critically ill.

He carried out his intention every evening at nine o'clock until Sunday evening when he locked the door at ten o'clock but did not at that time pay any attention to the fact that the door was unlocked and had been in that condition all that day.

Monday evening came and Doctor Wiseman, desiring to retire early, examined the locks at eight o'clock. Everything was found secure and the doctor's family were all asleep long before ten o'clock. About midnight little Henry awake, struggling with the croup. Doctor Wiseman hurried down to his private office, scantily clad, to get some croup medicine. The room was unusually cold because the incorrigible back door, obedient to some unseen power, stood partly open, letting the cold air blow in unbidden upon the anxious father's unshod feet. Doctor Wiseman was conscious of the fact, but in the excitement of getting quick relief to the suffocating baby, paid no attention to the matter un-

til morning when he went down to empty the ashes and attend to the fires. The door was open and still he could swear that he had locked it himself. What did it mean? Thievery? Nothing was gone, nothing was disturbed. What could it mean? He looked for tracks but the stepping stones in the back yard had no marks that he could discover by hastily looking at them.

Tuesday evening he examined the mysteriously acting door at ten o'clock and after his wife had gone to sleep he sat up until midnight reading a treatise on hypnotism, telepathy and psychic research. When the clock stopped striking the midnight hour, with flash-light in one hand and a loaded revolver in the other, Doctor Wiseman, with an evidently puzzled and anxious expression on his face, descended to the hall and passed cautiously through the reception room, flashing the light into every corner.

With some trepidation he entered the private office, and threw flashes of light into its two closets, thinking the intruder had perchance hidden in one of them. Everything was in its accustomed place. He rushed to the troublesome door. The chain was unhooked and the door was unlocked. The cold perspiration stood out on the doctor's forehead. He felt exactly as a surgeon would feel who had just caused the death of a patient by a careless slip of the knife while operating. Who was this house-breaker, this unlocker of doors? If his object were murder, why had he waited, why had he toyed so long with the problem? Doctor Wiseman was a brave man but he thought best not to open the door leading to the cellar. Locking the back door which seemed now to be possessed by a demon of its own, he then lighted the gas jets in both offices, stirred up the dying fires, and awaited developments, but none came. Long before daylight he had determined on a course of action. Mrs. Wiseman and the baby would stay that night at neighbor Brown's while Ben Hallington, a private detective, and himself, would watch the night through. When it was daylight, the doctor with flash-light and coal scuttle in one hand and a revolver in the other went down the cellar steps and returned several times with a little more alacrity than usual. The flash-light revealed nothing out of the ordinary in the coal bin and he did not think to look elsewhere in that gloomy, windowless cellar.

Wednesday evening Mrs. Wiseman and the baby were early and safely ensconced in the Brown home. At ten o'clock Doctor Wiseman and Ben Hallington looked into the closets, locked the doors, and, leaving by the front door, went around the corner of Mr. Brown's home, into the alley and past the ash-can and the garbage tank. Between the latter and neighbor Brown's house was a door set in the high board fence. This door was open and the two men took up positions whence they could see anyone entering or leaving through it. The garbage tank was set in an oblong hole in the fence and was hung on a hinge at the bottom so that the city garbage collector could tilt the tank into the alley, raise the hinged cover and remove the contents without entering the yard. When his work was done, he could lift the tank back into place easily and the tenants of the flats would find it immediately ready for use. Ben Hallington was more puzzled by this case than any other he had ever undertaken. He was compelled to refuse every theory that presented itself and relied solely on his ability to meet quickly any emergency that might arise. It was a weary wait for the two men in the alley, while a patrolman in uniform kept watch of the front door, walking up and down the block, now on the same side of the street as the office, and now on the opposite, signaling with upraised club to the men in the alley that all was well as far as he could see.

An hour and a half passed by, the slowly dragging minutes seemed hours in themselves. Ben Hallington's eyes in-

stinctively watched the door. No one went on or came out of it. The moon was in its fullest glory but the clouds came and went irregularly. At times the tin cover of the garbage tank was brightly visible in the moonlight and then, dull and scarcely discernible. As the clock in a distant steeple was chiming the quarter of twelve a bright, silvery shaft of moonlight fell on the cover of the tank. Ben Hallington saw the cover rise, then lower and close with the faintest sort of a click. A second later a cloud obscured the scene. Hallington's left hand grasped the doctors right wrist and hurried him to the door in the fence. Pausing a moment they saw a shadow glide rather than dart around the corner of the Brown homestead. Into the yard they dashed and hurried along the path of stepping stones to the back door, which closed softly. Before they could reach it, the key was turned in the door. This time it was locked by the unseen hand that had always left it open before. They tried to force the door open; the lock gave but the chain was hooked and they could not enter. Leaving the doctor on guard outside the back door, the detective ran around the Brown house and with the patrolman entered the front door, hurried into the private office, lighted the gas, opened the provoking back door and admitted Doctor Wiseman. The closets were examined, the patrolman rushed upstairs and searched the "Drawing room" and the "Chop house." When he returned and reported everything unharmed, the three pursuers looked at each other silently and intently. The culprit had apparently vanished into thin air.

"The cellar!" muttered Ben Hallington, pulling open the door while the patrolman covered the stairway with his revolver. Mrs. Wiseman having heard the noise and fearing for her husband, had rushed over from Mr. Brown's home and unknown to her husband followed the three men down the stairway as they led the way with search-lights and drawn revolvers, regardless of the desperate consequences that might come out of that heavy darkness. The lamps were flashed in different directions without result until all three of the lights happened to be turned at once into the farthermost corner of the coal bin where all four of them couldsee—there in the corner, with hunger-beaming eyes, heaving chest, and a defiant showing of teeth, wan hands clasping a half-loaf of bread and withal a helpless face of innocence—the object of their search—a good sized monkey!

The three men grunted a simultaneous "Humph." Some dainty footsteps and swishing of skirts running up the cellar steps caused the men to bump their heads against the low ceiling as they turned to follow the new intruder. When they had reached the top stair, Mrs. Wiseman, having flung herself into her husband's examining chair, was laughing hysterically. Recognizing her at once, they looked at each other and laughed like a lot of schoolboys caught in some foolish trick.

Meanwhile the monkey came bounding noiselessly up the cellar stairs, unhooked the chain and was about to turn the key in the lock, but Ben Hallington placed his foot against the door and prevented the monkey's escape. An advertisement in the "Lost and Found" column of the evening paper restored the monkey to his owner and the mystery of the back door passed into history, leaving a new lock on its frame as a remembrance of that exciting April night when one monkey made fools of three full grown men.

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A good remedy for many urinary disorders, backache, lumbago ,etc., is equal parts of the fluid extracts of buchu and corn silk in 20 drop doses ever 3 to 6 hours.

J. A. Burnett, M. D.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

HEALING THE SICK.

In my fifteen years of post graduate work (that is teaching physicians the treatment of chronic diseases) I have learned some things and especially the weak points of the average practitioner of medicine. One important point let us never lose sight of, that "Nature cures." A physician is only an assistant. Nature is our ally, our best friend and will help us to cure our patients if we will not interfere with her work. Every man and woman born into this world has a certain amount of "reserve force"; that is a savings bank only to be drawn upon in time of need. By excessive mental or physical work, by worriment of mind, by excess in eating and drinking, by our bad habits, by excessive sexual indulgence, by over-training in athletics, we may use up much of this reserve force.

This reserve force in intended to tide us over any illness, it is intended to prolong our lives to a good old age. In making up our diagnosis of a case we must always take into consideration the amount of reserve force a patient has to depend on. If the vitality, the reserve power of the people, could be kept at the normal point or near that, there would be no such diseases as cancer, diabetes, consumption, Bright's disease, etc., etc.

Then the keynote of our treatment must be first of all to raise the "nerve power" to the normal point and try to hold it there. This is the very foundation of our success in the treatment of the diseases that are carrying off thousands of our people to the grave. Many doctors when called to a patient suffering from what they suppose to be one of the above diseases, want to go for the cancer, for the lungs or kidneys first of all. All this is wrong and is beginning at the wrong end. Now if we were to repair a house would we begin to shingle the roof or would we commence at the very foundation and work on the underpinning? So it should be in the healing of the sick. Let us begin at the bottom and learn the amount of reserve force available, the vitality of our patient. The condition of the pulse will tell us whether the reserve power is above par or below it. In diagnosing a case we may stick the thermometer under the tongue, count the pulse, pound the lungs, examine the urine, "look wise" and think we know all about the patient's condition, but we know very little about it. We can learn very much about the case, if we note the quality and character of the pulse, from this we learn of the vitality of our patient. If the pump, or the heart, is out of order the pulse will show it. There may be weakness or tension, each tells a story of its own..

Feeling the muscles of the arm we can tell if our patient is well nourished or losing flesh. After 40 years if the patient weighs 20% above normal weight look out for head trouble, apoplexy. If 20% below normal weight look out for cancer, Bright's disease, and diabetes. A weakness of the pulse and loss of weight and flesh show that the vitality of the patient is below the normal point. We must therefore raise the reserve power at the very beginning of our treatment; no matter what the disease may be called or how far advanced it may be, if we can keep the vitality of our patient at or near the normal point it will give the patient at least a fighting chance. Every dose of medicine we give must work in harmony with nature, every dose of medecine that has a tendency to lower the vitality of your patient just lessens the chance of recovery. Many

doctors treat disease as an enemy that must be expelled from the system by force of arms. No remedy is too powerful for them. They speak of their heroic treatment, of the big doses of medicine and tell of the wonderful cures they have made. All this is a mistake, for in this three cornered fight we have the disease, the medicine, the vitality of the patient. The vitality of the patient being strong enough to overcome the disease and the action of our remedies our patient gets well.

In this fight instead of aiding nature we give her a "black eye." She returns our unkindness by curing our patient. The older I grow the more impressed I am with the importance of not giving a remedy or a dose of medicine that will weaken the vitality of my patients, for if I do this I know I am working against nature, the best friend I have. I often read in the medical journals how some doctors treat their cases, almost every remedy or compound given is tearing down the vitality of the patient. Strong catharties are given, big doses of morphine, digitalis, coal tar products, all this weakens the vitality of the patient just so much. The above remedies are the "siege guns" of the materia medica and should be held in reserve for the critical time. I never use morphine, only as a last resort to relieve pain when all else fails. When a remedy is indicated if we give it in medicinal doses, we expect good results. The system receives it kindly and responds to its action. If we give it in big doses we get its poisonous effects. Nature treats it as a poison and tries to expel it from the system. All this complicates the case and lessens your chance of recovery.

Many doctors seem to think a remedy is of no value as a medicine unless it is a deadly poison, and when they give it they think it must be given in doses large enough to show some of its poisonous symptoms. Veratrum viride is one of many valuable remedies that has been thus misused and abused. It has been "killed in the house of friends." It has been given in heroic doses, 10 and 20 of the tincture once in an hour or two hours in pneumonia until the heart stopped beating and the remedy got all the blame.

Veratrum in large doses on animals will cause congestion of the lungs. It is indicated in the first stage (the congestive stage) of that disease. If we give 10 drops of a good tincture veratrum viride in 4 ounces of water, teaspoonful once an hour, we have helped our patient. If nausea sets in, it is the "danger signal" of nature and we give it less often. It is only indicated in the first stage often that other remedies are indicated. Veratrum is only one of many real good remedies that have been abused because the doctor did not know when to give and how to give it.

A young doctor was called to see a patient. On the first day he called it asthma, on the second day heart disease, on the third kidney disease. The real trouble was autointoxication. The patient was eating too much, more than the stomach could digest. It was only necessary to do a little "house cleaning," cut down the food one half, give a simple remedy to aid digestion and the patient was better. A young doctor is usually wrapped up in self conceit. It is only after he has had the undertaker carry away some of his patients that he begins to find out that he don't know all there is to be learned about medicine. A doctor has to practice medicine 15 or 20 years before he finds out how little he knows about medicine. He is then in a proper frame of mind to absorb information and you can be a help to him in teaching him how to heal the sick. I have practiced medicine for 40 years and I am only a student of medicine. I have never studied so hard in my life as I have the past year. The older I grow the more faith I have in my remedies, they are old friends, tried and true. My greatest ambition is to be called a

good physician and I would rather have that reputation than be President of these United States.

ELI G. JONES, M. D.
Burlington, N. J.

OPIUM.

Most all close, observing, experienced, physicans who have used opium and its alkaloids to any extent know the great therapeutic value. On page 12, Jan. Recorder, Dr. Eli G. Jones says:

"In a practice of 40 years I have not used half a drachm of morphine or opium."

I wish to state than any practitioner of 40 years experience who has never used half a drachm of any drug that has a similar size dose as morphine or opium, should not be wasting time in giving his opinions and ideas regarding such drug to the profession because he knows nothing about it.

Opium is a valuable therapeutic agent and so conceded by our best clinical and laboratory observers as well as a great army of general practicians in all or most all parts of the civilized world. In some conditions opium has advantages over any of its alkaloids. In fact there is no drug that has an alkaloid which alkaloid exactly represents the natural drug. Opium is tolerated by patients that do not tolerate morphine very well and it is more constipating and better in diarrhœa than morphine. Opium is a better diaphoretic than morphine.

The late Dr. Bachelor of Pauline, Ark., who died some ten years ago and who had had a number of years of experience, said that if he was limited to only one remedy in practice, he would select Dovers powder.

The best treatment that I ever used in diarrhoea and hemorrhage in typhoid fever is tinct. of opium, alternated with lead acetate. I got the idea from Osler's Practice of Medicine. I have cured the ordinary summer diarrhoea in children after 40 years experienced eclectic doctors had failed, with a mixture of Dovers powder and podophyllin. I have relieved children of severe pain when they could hardly endure it, in only a few minutes with a few drops of paregoric.

I could go on almost indefinitely with the therapeutic uses of opium but it is not necessary for it is very well known to the up-to-date physician and will always occupy a place in practice as it fills a place no other drug can fill.

I am aware of the great harm that can be done with opiates and admit when it is used, it should be used by a physician that understands it. I am aware of the harm that can come from the use of various other drugs, from electricity, vibration, the knife in surgery, etc., when not used properly. If a therapeutic agent of any kind is capable of doing good without doing harm when properly used, it should not be condemned because it can do harm when not properly used. The early botanic physicians tried to put calomel out of use and there have been thousands of pages written on condemning it but the job of putting it out of use is no nearer accomplished than when first begun and the same can be said of opium as well as other remedies that will be used for ages to come.

I have given numerous hypodermic injections of morphine and have never yet stirred up some latent disease as Dr. Jones speaks of and would like to know if other readers of The Recorder have been stirring up latent diseases in this way.

Dr. Jones say: "Find out the cause of the pain and remove it." He may be able to find out the cause of all pains but I cannot do it and don't believe the ordinary physician is good enough to diagnose and give the pathology of all forms of pain. Probably the reason Dr. Jones does not use opiates is on the account of his psychological power. The readers of this will no doubt remember his article on drugless healing that gave

quite a lot of statistics that no one knows where he got that was published in several journals some months ago. This scientific (!) article based on statistics (but not government statistics) condemned the use of all drugs and one to read it would think drug treatment would soon be a thing of the past. I wonder if Dr. Jones ever used the H. M. C., and if he can get along as well in general practice without them as well as with them. I do not wish to be understood that I claim opium or its alkaloids to be "cure alls" and that they are harmless or always used by all physicians as they should be used but that opium and its alkaloids should be used only as directed in our standard text-books that are written by distinguished authors who tell all about their uses as well as their abuses and their dangers.

J. A. Burnett, M. D.
Little Rock, Ark.

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MEDIC "CO-EDS" LOGIC

Drawn by Grace M. Norris, M. D.

Anatomy seems such a dry subject except when "wet" preparations are used.

Note—Some colleges require students to prepare wet preparations of anatomical specimens

RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

BLOOD PRESSURE.

The subject of blood pressure has received a great deal of attention during the last ten years and the significance of its variations been carefully studied. While a great deal more is to be learned about it, enough is already known to make the determination of blood pressure an important part of routine diagnostic procedure. Normally blood pressure varies much according to age and under different conditions of body and mind. After meals, during or after exercise, with any change of posture, or with any mental excitement there is a noticeable variation. It is necessary, therefore, to take the pressure on successive days under similar conditions of position, exercise, etc.

In the study of blood pressure and in estimating its significance in the individual we must keep in mind the chief factors which produce it, namely the ventricular systole, the peripheral resistance and the elastic recoil of the arteries. If these three factors are in proper relation to each other, a normal pressure exists. If the relation changes the pressure becomes either too high or too low. Peripheral resistance is especially important. It is constituted by anything that retards the blood current after it leaves the left ventricle, obstruction because of narrowed or obliterated blood vessels, friction, gravitation, or any other cause. Friction between the blood current and the arterial wall produces a great resistance, but the elastic recoil of normal arteries more than compensates for this and rushes the currnt on with a force almost equal to that of the ventricular system. With the loss of the power of recoil, as in advanced arterio sclerosis, resistance becomes the dominant factor and the arterial walls are more of a hindrance than a help to the flow of blood. Peripheral resistance is further added to by organic changes which lessen the vascular caliber. This is particularly true of the kidney. Diseased kidneys more than any other pathological condition gives rise to high blood pressure.

Increased peripheral resistance necessitates increased blood pressure. This need is met, in the normal way, by progressive cardiac hypertrophy. So long as cardiac hypertrophy is sufficient to compensate for increased resistance, so long the patient is comfortable. Other conditions which induce an increase of blood pressure are insufficient elimination by intestines, kidneys, skin, excess in eating and drinking, abuse of tobacco, etc.

Under normal conditions the maximal pressure ranges in adults from 115 to 140, the minimal pressure from 80 to 100. In children it is much lower. In man it ranges from 5 to 10 degrees higher than in woman. Frequent reading of the blood pressure may lead to an early detection of pathologic states, before other symptoms become marked and give a chance for efficint therapeutic measures. It gives early warning of developing arterio-sclerosis, in acute rheumatism, it will indicate beginning abnormal condition of the heart. In impending cerebral hemorrhage its value cannot be over estimated. Rise in blood pressure may reveal the beginning of interstitial nephritis long before any other diagnostic means can detect a lesion in the kidneys.

Various drugs and other therapeutic agents have a constant effect upon blood pressure. Adreeralin digitalis

raise it and must therefore be used with great caution where there is increased tension. Tension is lowered by the nitrites, iodide of sodium and poassium, calomel, bromide, aconite, the high frequency current, hot baths and rest.

ERYSIPELAS.

Aspinwall Judd describes in the Medical Record the local use of carbolic acid and alcohol in erysipelas. About eight years ago he began to treat all cases of erysipelas by the method described. Since then he has seldom failed to secure a satisfactory result, and has discarded all other remedies in these cases. He has treated 82 patients with five failures, 10 delayed recoveries and 67 complete remissions of symptoms in from 12 hours to four days. These cases have included not only the beginning stages of facial and other forms of erysipelas, but those in the advanced stages in which the area involved varied from the face only to the face and scalp with marked general septic symptoms. Almost the first result noticed by the patient is a complete cessation of the intolerable itching, burning and throbbing. Usually in a few hours nausea subsides and within 24 hours the temperature sinks to nearly normal, the appetite returns and the pulse falls rapidly, even in severe cases, from 120 or more to normal and except for the swelling which though diminished, remains for 24 or 48 hours longer, the patient is relieved from distressing symptoms. The technic consists in swabbing with 95% carbolic solution the entire surface of the involved area and about half an inch of the surrounding apparently healthy skin. This is left until the purplish color of the inflamed area is replaced by a whitening of the skin. It is essential to the success of the procedure to await this whitening before proceeding further. On the other hand, if the whitening is allowed to proceed to a thorough blanching, a burn and slough of the skin is produced which will prove painful to the patient and interfere with the success of the treatment. When large areas are involved it is advisable that only a portion be painted at a time. The second step consists in going over the whitened area very thoroughly with a swab saturated with pure alcohol. If this is done thoroughly the whitened area becomes once more pink and the alcohol must be applied until this is accomplished. In this way successive areas are treated, until the entire diseased surface has been gone over. It is essential that a half inch of apparently sound skin be included, as the bacteria of erysipelas are found beyond the limits of the apparently involved area. If the treatment is properly carried out no scarring results. The superficial layers of the skin come off as in a mild sunburn and the skin beneath is only slightly tender. One application is usually sufficient to control the inflammation and the after treatment consists in moist dressings of saline or bichloride solution

A FEW EARLY SIGNS OF MENINGITIS.

Legnorellis' sign consists of pain upon pressure over a point situated behind the jaw, below the ear and in front of the mastoid process. It is said to be present in all cases of meningitis, to appear early, even before Kernig's sign or cervical rigidity and to be one of the last manifestations of the disease to disappear. Even when the patient is comatose, pressure over this spot elicits some sort of reaction of defense on the part of the patient, although it is most marked through the irritative stage. Its chief value lies in those obscure cases in which it is a question whether the disease is true meningitis or merely meningeal irritation due to sepsis, typhoid, malaria or some other infection.

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There are two timely articles in this volume on the treatment of syphilis by Ehrlich's "606." Dr. H. W. Cattell, of Philadelphia, gives a description of the remedy and the technique of its use. Dr. G. E. DeSchweinitz and Dr. E. A. Shumway, of Philadelphia, report a case of true syphilitic iritis treated by "606."

"Wounds by Fire-Arms" is an elaborate study of the subject by Wm. S. Woodsworth, Coroner's Physician, Philadelphia. The article is a part of the Post Graduate Course of International Clinics and gives observations never reported before. The article is illustrated with plates. Another notable article, illustrated with plates, is "Hypnosis, Its Psychological Interpretation and its Practical Use in the Diagnosis and Treatment of Disease," by J. Victor Haberman of New York. Dr. L. F. Baker, of John Hopkins University, contributes an article on the examinations of blood which will be found very useful. He gives methods which the general practitioner can use.

Some of the other articles are: "The United States Pharmacopeia, Ninth Revision," by Joseph P. Remington, Ph. M.; "Further Contributions on the Treatment of Leukaemia by Roentgen Rays," by Henry K. Pancost, M. D.; "Functional Tests of Cardiac Efficiency," by Arthur D. Hirschfelder; "Gangrene of Limb During Convalescence from Diphtheria," by A. S. Ransome, M. A., M. B., B. C. (Cantab.), and Eldred M. Corner, M. C. (Cantab.), F. R. C. S.; "Cholera Nostras—Cholera Asiatica," by S. R. Klein, M. A., M. D., Ph. D.; "Congenital Syphilis Simulating Leukæmia and Splenic Anæmia (Banti's Disease)," by Albert Scott Warthin, Ph. D., M. D.; "Transfusion of Blood Employing Only Veins," by George Morris Dorrance, M. D., and Nate Ginsburg, M. D.; "The Technic, Aims and Limitations of Spinal Anæsthesia in the Young," by H. Tyrrell Gray, M. A., M. C., (Cantab.), F. R. C. S. (Eng.); "Surgical Tuberculosis of Joints and the Effects of Surgical Treatment," by James K. Young, M. D., "A Clinical Lecture on the Retrocaecal Appendix," by Daniel N. Eisendrath, M. D.; "The Management of Four Kinds of Appendicitis," by Robert T. Morris, M. D.; "The Acute Abdomen in Children, With Special Reference to Acute Intussusception and Acute Appendicitis," by E. Scott Carmichæl, M. B., F. R. C. S. E.; "Improved Oesophageal Instruments," by J. J. Rectenwald, M. D.; "A Report of the Surgical Clinic at St. Mary's Hospital of Rochester, Minne-

sota, for the month of July, 1910," by E. H. Beckman, M. D.; "Colectomy for Obstinate Constipation; Exophthalmic Goitre; Appendicitis; Fibroids; Ovarian Cyst; Gall-Stones; Cervical Ulceration; Pyloric Obstruction; Varicose Veins," by A. J. Ochsner, M. D., LL. D.; "Traumatic Neuroses," by Arthur Dean Bevan, M. D.; "Differential Diagnosis Between Epilepsy and Hysteria and Their Mutual Relationship," by Theodore Diller, M. D.; "The Relation of Thrombophlebitis of the Portal and Splenic Veins to Splenic Anæmia and Banti's Disease," by Alfred Scott Warthin, Ph. D., M. D.; "Refraction by the General Practitioner," by William Zentmayer, M. D.; "The Law Respecting Compensation to Workmen for Accidents in Great Britain, and Its Operation," by John Glaister, M. D., D. P. H., (Camb.) , F. R. S. Ed.; "Physicians' Fees Down the Ages," by James J. Walsh, M. D., Ph. D., Litt. D.

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Diagnosis of Syphilis. By Geo. E. Malsbary, M. D., Professor of Medicine, Cincinnati Polyclinic and Post-Graduate School, Author of a "Text-Book on the Practice of Medicine," etc. Pages 422. Half Morocco and Cloth. Price $5.00. Harvey Publishing Co., Cincinnati.

The attention at present given to syphilis on acount of the treatment by arsenobenzol, "606," makes this book very timely. Before using this powerful new remedy the diagnosis of syphilis must be positive. This book furnishes a guide for the positive diagnosis of syphilis in all stages and manifestations. As the author says: "No disease may present greater diversity in appearance and symptomatology. Syphilis may involve practically every organ and tissue in the body. Hence, the disease is of diagnostic interest to medical men, whether they be in general or special practice."

The book gives the details of the modern laboratory method of diagnosis as well as the clinical. The value and technic of the Wasserman and other serum tests are given. The number of these tests will surprise those who have not kept abreast with recent developments in this field. The discovery of the cause of syphilis, the spirochaeti pallida, has made the diagnosis of the disease positive even though the symptoms may be obscure. The author presents the importance of the discovery of the spirochaeti and gives the details of its detection.

The methods of infection are given and then follows a complete discussion of hereditary and acquired syphilis in all stages. A description is given of syphilis in all parts of the body including the organs of the special senses and the nervous system.

The volume contains a very complete and extensive bibliography on diagnosis of syphilis. The book is beautifully printed and bound as are all the books issued by this firm.

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A Compound of the Active Principles. With Symptomatic Indications for Their Therapeutic Use. By H. H. Redfield, A. B., M. D., Associate Professor of Thearapeutics, Bennett Medical College; Professor of Therapeutics and Physiology, Reliance Medical College, Chicago. Pages 115. Cloth, Price $1.00. Clinic Publishing Co., Ravenswood Station, Chicago.

This book was prepared by the author especially for the use of his students but the active practitioner will find it a useful introduction to the practice of dosimetry. The volume does not attempt to cover the entire field of alkaloidal materia medica but gives the facts concerning the most valuable of the active principle remedies. The remedies are considered in alphabetical order which makes the book convenient for quick reference. The physiological action and therapeutics of each remedy are given so clearly that the reader can quickly get the indications for using a desired remedy.

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EDITOR
Janesville, Wis.

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SCARLET RED.

Scarlet red is an aniline dye which recently has been used in medical practice with sufficient success to indicate that it may be a valuable addition to the materia medica. It has promoted the healing of granulating wounds, assisted in skin formation over denuded areas and very recently has been used in corneal ulcers. Dr. W. O. Nance, of Chicago, has reported some encouraging results in the Journal of Ophthalmology and Oto-Laryngology. He has treated 20 cases with a 10 per cent ointment with no untoward results of any kind. It apparently does not possess antiseptic properties but causes a regeneration of tissue where large or deep areas are destroyed by ulceration.

The Hospital reports results which show the remedy to be worth a trial. Fischer of Bonn, first observed some few years back that solutions of scarlet red subcutaneously injected into a rabbit's ear induced an active proliferation of the overlying epithelium. As a result of this observation scarlet red has been employed to assist in the skin formation over clean granulating surfaces, and has been found of great value for this purpose, hastening the healing of large cutaneous defects and not infrequently supplanting skin grafting. Dr. Strauss publishes an article on the subject in the Deutsche Medizinische Wochenschrift. He employs an eight per cent ointment. Scarlet red is dissolved in chloroform oil, the solution being stirred until the chloroform has evaporated. Vaseline is then added to make the eight per cent ointment. This is spread upon gauze and is applied to the cleansed area. It should be changed every day or at least every other day. The addition of any antiseptic is unnecesary. This treatment is indicated in any large granulating area, and is of special value for the epidermisation of defects following burns and for granulating wounds. In such cases, according to this author subsequent contracting scars are in a large measure avoided. It has also acted very well in cases of ulcer of the leg, especially of the varicose variety, and in weeping eczema.

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In the March Recorder Doctors Gordon G. Burdick and Theodore C. F. Abel will start a series of articles on Bacteriology. The subject will be taken up from a viewpoint somewhat different from that of the ordinary bacteriological literature of today and we are sure our readers will find these articles interesting and profitable.

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VESICO-VAGINAL FISTULA

CHARLES J. DRUECK, M. D., Chicago, Ill.

Genital Fistula—and by that is meant any abnormal opening of the urinary system, either ureter, bladder or urethra, into the vagina—is perhaps one of the worst complications we are called upon to attend in pelvic troubles, because their effect upon the patient's nervous temperament and general health is far out of proportion to the pathologic lesion, and, no matter what the cause or origin may be, the sufferer ostracises herself from even her friends.

Fistula in the vault of the vagina results most frequently from malignant disease, either by sloughing of the cancerous tissue or by the surgeon cutting into the urinary passage while removing the diseased mass. This urinary wound is sometimes caused knowingly and sometimes accidentally by the surgeon. Fistula in the lower vagina result from: 1. Trauma, such as a protracted and difficult labor, when the bladder becomes filled and a fetal head pinches the bladder against the pelvic wall. 2. Imperfect union following operations. 3 Ulcerative processes of syphilis, tuberculosis or foreign bodies. 4. Anatomical malformations, although to a small degree. It may be well to remark here that great care must be used in catheterizing a woman in labor, because a catheter used too forcibly has caused a vesico-vaginal fistula.

Symptoms. Where the lesion is the result of ulceration—that is, in post-parturient, syphilitic or tubercular cases—or where fistula is due to pressure of foreign bodies, the actual solution of the tissues that is to constitute the fistula is preceded by the development of bladder symptoms. In post-parturient patients these symptoms may occupy but a few days, but when due to other ulcerative processes the prodromal bladder symptoms may occupy weeks or months.

At first there is irritation and congestion of the bladder wall, as evidenced by the frequent micturition and dysuria. Then develops a cystitis, with high temperature. The epithelium of the bladder next breaks down and hematuria occurs. Then finally the bladder sloughs away and the urine gushes from the vagina. From this time on the incontinence of the urine is more or less complete. The degree of incontinence depends upon the location, size and shape of the fistula. If the opening is small or high in the vagina the incontinence will occur only when the bladder is filled or when the vaginal outlet is intact, urine will collect in the vagina while the patient is recumbent and then be expelled when she arises. This irregular incontinence sometimes causes the woman to believe that her trouble, instead of being an abnormal opening into the bladder is rather a lack of control of the sphincters of the bladder. This constant dribbling of the urine keeps the vagina and external genitals wet, thus causing chafing; and the urinous odor always about the woman is a great embarassment

The urinary salts are deposited about the fistulous opening and in the vagina, and when removed, either purposely or by the gradual breaking down of the crusts, the surfaces are found ulcerated and bleeding, and so excruciatingly tender in some cases that a thorough examination is impossible without a general anaesthetic. Contraction goes on in one ulcer while crusts are forming on another place, and the opening into the bladder soon becomes circuitous.

For examination the patient should be placed in the lithotomy or in the Sims position, in a good light, either direct or reflected, The vaginal wall is now foribly retracted opposite the expected site of the fistula, and the exposed mucous membrane is then carefully examined. If the opening is large, it may be detected by palpitation or with the sound. Simon determines the size of the fistula by dilating the uretha and palpating the bladder wall with the finger. If, however, the opening is small and cannot be found by palpation, it must be located by watching the urine seep through the mucous membrane. Even with careful work it may be necesary to distend the bladder with permanganate or some aniline solution, and watch for its oozing through the wall into the vagina. Sometimes, instead of finding a definite opening from the bladder, the vesical mucosa will extrude into the vagina and the urine seep through this thin wall.

Prognosis. Having found the cause of the fistula in the first place, and its location, we are now ready to consider what the prospects are for its closure, and if it does not heal, why it does not. There is a vast difference in the history of fistulae produced by incision or laceration and those resulting from sloughing, by bruising or ulceration. The former leaves a clean-cut, healthy edge, which tends to granulate and contract until the opening is closed. When the mucosa has broken down by necrosis and sloughed away, the history of the fistula is very different. The wound edges are poorly nourished and uneven. Granulation goes on at one place while ulceration is still unfinished in another. About this sloughing mass is a region densely filled with leucocytes, which block the circulation. The lymphatics are also filled with debris, which they are striving to dispose of. It is little wonder with such pathology that regeneration does not progress or that urinary salts incrust the surfaces. These fistulae never heal of their own accord. The condition of the surrounding vaginal walls is important. If it is fixed to the ischii by scar tissue, there is little, if any, mobility. This, of course, prevents contraction of the wound edges. Then finally it must be remembered that there may be two or more fistulae, which may open into the ureters, urethra or uterus.

Treatment. Considering the variety of causes which operate singly or together to produce the fistula in the first place, and the added conditions which always complicate the course of every case, it is very evident that we have a number of divergent indications for treatment. Each patient presents symptoms and complications so peculiar to her case that all sorts of methods of treatment have been devised, and different operators have presented an array of different types of operations. This enormous list of different ideas, all bearing on one subject, shows in itself that we have a perplexing subject, and in many instances an unsatisfactory treatment. The treatment of these cases is divided into topical treatments and plastic surgery. It is the topical treatments especially of which I wish to speak, because; 1. Many fistulae may be cured without plastic work, if properly cared for. 2. Very few surgical operations cure without a good preparatory course which is practically what I outline below. 3. Many small fistulae

are very difficult to find and harder to close than large openings. I refer to those where there is a seeping through the vaginal wall without there being any well defined hole present. 4. There are a number of patients who cannot or will not take an anaesthetic but who need help. Therefore in well selected case I believe you will find this treatment valuable.

All sufferers, regardless of the cause of the fistula, should first be given a course of palliative or preparatory treatment, which in some cases will effect a cure, and in all instances, even in patients who must later submit to surgical treatment, it will greatly enenhance the chances by cleansing the wound area, reducing infection and unloading the lymphatics. In patients presenting recent lesions, cleanliness and keeping down of fatty granulations will assist Nature to close the opening. Boric acid or saline solution vaginal douches should be given several times daily to remove septic or necrotic masses. If a sloughing mass can be seen, it should be cut away. Fistulae of one or two centimeters diameter will frequently heal under this care, but it usually requires three to six months. If the granulations seem sluggish and the fistula is very small, the edges may be freshened and the bladder drained with a retained catheter through the natural passages for a week or ten days. Due care must be given to see that the urine is kept acid during this time, and the frequent vaginal douches prevent infection of the bladder from the vagina.

Traumatic fistula should not be treated surgically for at least two months, because under this palliative treatment many of them close spontaneously. Lime salt deposits and crusts should be removed, and the frequently repeated douches of boric acid are usually effective, or nitric acid, 1 to 4,000, may be used. Frequently ulceration will be found under the crusts, and these must be cured before attempting any operation. If the douching is not sufficient, the ulcers should be brushed every few days with nitrate of silver solution, 5 grains to the ounce. At each vaginal douching the parts should be inspected, and if any sloughs or masses of mucus are found they should be carefully wiped out with cotton pledgets. If any scars or bands distort or stretch the vagina they must be divided and allowed to heal on the stretch. Sometimes these scars constrict the urethra and will call for thorough dilation of this passage before repairing the fistula. Where the fistula is dependent upon some other diseased condition, such as cystitis or tubercular ulceration of the bladder, the underlying causes must be corrected before anything more than a palliative treatment is attempted, because no plastic operation can cure without it.

If a fistula in the rectum and another into the bladder co-exist, the recto-vaginal opening must be repaired first and allowed to heal before attempting to close the vesical sinus, as otherwise the bladder stitches would surely be infected.

There are, however, cases where treatment as outlined above will not effect a cure. When the fistula has existed for a long time, and is surrounded by dense cicatrical tissue, nothing but operative procedure can hope for a cure, or when the opening is large and high up in the vagina some very ingenious surgery is needed, and in each case the style of operation depends upon the conditions peculiar to that case. The greatest handicaps to plastic work are tension of the sutures and wound infection, and the only way to lessen the dangers of the complications is to prepare the patient by some course of preparatory treatment along the lines suggested.

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BACTERIA--ANIMALS OR PLANTS

By DRS. GORDEN G. BURDICK and THEODORE C. F. ABEL, Chicago

Since 1683, when Anthony von Leeuwenhoek discovered what he called "tiny animals which moved about in a most amusing fashion," in water and saliva, and which were undoubtedly bacteria, up to the present time, there has been more or less speculation as to the nature of these minute organisms. The idea that they are of the vegetable kingdom has been held so many years, that few have dared to question it. It has been a matter of creed rather than fact. It would be difficult to prove this point, but from what is known of the chemical structure of bacteria, there are probably more points in favor of the animal nature than of the vegetable.

One of the ideas which went far toward the placing of bacteria as vegetable organisms was that the cell-wall was composed of pure cellulose. This, in spite of the fact that some undoubted animals (tunicata) contain cellulose in their sheaths, was taken as conclusive proof of their vegetable nature. But recent researches have shown that the cell-wall of bacteria is more like chitin than cellulose. Chitin is an amido-compound of a carbohydrate, and yields 80-90% of glucosamin, one of the nitrogenous metabolic products of higher animals, including man. Chitin is also found, as is known, in the covering of beetles and the shells of crustacea.

As far as the chemical structure of the protoplasm is concerned, our knowledge is quite limited. It varies greatly in different species, and on the same species when grown on different media, also with age. Proteins rich in phosphorus, however, form the greater part. According to recent investigations by Iwanoff, the principal constituent is a genuine nucleo-proteid, containing traces of iron and sulphur.

Another investigator, Nishimura, has reported the purin bases, guanin, adenin, and xanthin, in bacterial protoplasm. Others have found glyconucleo-proteids and mucin, especially in the colon bacillus. Peptones have been isolated from putrefactive bacteria. Globulins and nucleo-albumins have been reported. The gelatinous material of the so-called zooglea is chemically similar to mucin. Simple and complex fats like cholesterin and lecithin have been isolated. The acid-proof substance in the tubercle and other bacilli is similar to wax in composition. True carbohydrates, like starch, sugar and cellulose, cannot be demonstrated.

Certainly, from the standpoint of chemical composition, bacteria could just as well be classed as animals, as vegetables. The few species that contain chlorophyl are probably rather to be classed among the algae than among the fungi. Still, many undoubted animal organisms contain chlorophyl.

Another point in which bacteria resemble animals more than plants is in the character of their food. It is well known that plants require comparatively simple inorganic substances for their sustenance, such as nitrates, ammonia, carbon dioxid, water, nitrogen, etc., which they build up into complex compounds, starches, sugars, and so on. On the other hand animals require complex compounds, carbo-hydrates and proteids, which they resolve into simpler substances. Animals take in oxygen and give out carbon dioxide; plants take in carbon dioxide and give out oxygen.

Let us see how bacteria compare with this. They require complex materials, proteids and carbo-hydrates, in other words organic matter, living or dead, for their sustenance. Only a few species can exist on inorganic media. Most bacteria require oxygen and among

their waste products is carbon dioxide. Does this resemble animals or plants more closely?

Besides chemical composition and food habits, the property of motility possessed by so many bacteria make them resemble animals more than plants. It is a difficult matter to watch a hanging drop preparation of the typhoid bacillus, for instance, and try to hypnotize yourself into the belief that the squirming, wriggling, active little beings are plants and not animals. And if we take this same bacillus and stain it to show its flagellae, the matter becomes still worse, as a more animal-like appearance cannot be conceived.

That the idea of the possible animal nature of at least some species is gaining ground even among the orthodox, is proven by the fact that the spirocheta pallida and lately the spirocheta of Obermaier, have been by almost common consent placed among the protozoa.

There are absolutely no positive reasons for placing bacteria among the plants, while there are many for placing them among animals. To recapitulate (1) animals contain more protein, plants more carbo-hydrate. Bacteria are mostly protein, and no carbo-hydrate of any kind has been proven in their protoplasm. (2) Animals require complex organic food, and cannot subsist on inorganic substances. Bacteria require the same food as animals, not the same as plants. (3) Animals take in oxygen and give out carbonic acid; plants the reverse. Bacteria require oxygen and produce carbonic acid as waste. (4) Many bacteria are motile; most plants are immotile, as are many lower animals. (5) The bacterial cell-wall is composed of chitin, an animal product; not of cellulose, a vegetable product. No cellulose has been demonstrated anywhere in the cell by latest researches. (6) The waste products of bacteria, carbon dioxide, hydrogen, indol, etc., all resemble those of animals more than they do those of plants.

While it is not our purpose to upset the cherished traditions that have held sway for so many years among bacteriologists, still there is just a possible chance that future researches may show that not only the spirochetae, but all bacteria, are not plants but animals.

CAR SICKNESS

By A. S. CORE, M. D., Chicago, Illinois

In a practice covering a period of over thirty years there has been found in the examination of a large number of patients who suffer from headache and nausea when riding on cars a condition of astigmatism that is usually overlooked by physicians, and patients are quite frequently treated for biliousness or dyspepsia when glasses only are required to correct an error in the refractive media.

Car-sickness is regarded by some as only a symptom of eye-strain due to some systemic cause, and by others the nausea and headache is regarded as the principal disease and treated as acute indigestion. While in most cases car-sickness is associated with headache, blurring of the vision and nausea, the stomach is given the prominence as the chief offending organ by the patient and they will dispute the suggestion that the eyes are the cause and reject glasses.

The person who experiences dizziness and nausea on the cars will usually experience dizziness and nausea when looking at checked or plaid goods, and also when reading music or when looking at choppy waves or the tremb-

ling motion of water. In all of these conditions the stomach is by far the most frequently blamed as the cause and treatment for gastritis, dyspepsia, etc., used for the relief and correction of the distress caused by the conditions outlined. Upon an investigation of these conditions it has been found that a large majority of people who suffer from car-sickness, dizziness, vomiting, etc., had either simple or compound astigmatism in one or both eyes, and that the proportion was greater in the myopic than in the hyperopic eyes. In nearly every case of car-sickness it was found associated with astigmatism, with or without some other form of error in the eye, and the correct adjustment of proper glasses cured the nausea and dizziness completely when the glasses were constantly worn, and improved the vision, though patients had not before observed that they did not have perfect vision. When the correct glasses are worn while using the cars, inspecting checked goods, or reading music, not only will the car-sickness disappear, but with it the vertigo, the nausea, the vomiting, the headache, the blurring of sight and the stomach distress, without subjecting that poor abused organ to charcoal tablets, pepsin wafers and other disagreeable drugs.

The cost of glasses is less than the cost of medicine and the pleasure and comfort from their use when properly fitted is better for the health and comfort of the patient.

Patients will experience the greatest comfort when wearing a lens that fully corrects the refractive error which produces these distressing symptoms, but sometimes an injury that has caused a deformed nose, an enlarged turbinate bone or a deflected septum will have a bad effect on the eyes and the use of glasses without a refractive error may cause nausea and headache. Persons have had to lay aside glasses that they have worn for years with complete relief after a correction of a deformity of the nose. Stubborn cases of headache and eye pains that have resisted the usual treatment with local applications and glasses, have been completely cured when the pathologic condition of the nose was corrected by an operation. Supra-orbital neuralgia as well as headache with blurred vision have been permanently relieved by removing pressure contract of the septum and turbinates. On the other hand, many persons are using douches, sprays, powders and other patent "dope" for a catarrh of the nose that glasses would almost instantly cure if adopted. In headache, nausea, etc., caused by the cars look to the eyes or the nose for the cause, not to the stomach, and a permanent relief will be obtained for the patient quicker and more lasting with glasses than with medicine.

The eye is influenced by so many factors that no hard and fast rules can be given in the prescribing of glasses. The health, temperament, vocation, habits and the amount and character of the error may offset the muscular tone and these conditions may be of a very inconstant nature.

A lowered tone of the accommodative power of the eye may cause nausea and dizziness and require something more than glasses. Persons who suffer from accommodative errors of the eye dependent upon systemic conditions, which sometimes follows the various ininfectious fevers, especially that of typhoid fever, diphtheria and certain toxemias and anemias as well as subnormal conditions from other causes are generally benefited by rest and such systemic treatment as may be indicated to aid in the restoration of normal accomodative function of the eyes, together with such glasses as the eye demands after the correction of the systemic condition.

When the eye is not impaired by a systemic disease and the motion of the cars, etc., causes an impairment of the

visual function wih nausea, the underlying causes can be usually located in an astigmatic condition of the eye and glasses used as the remedy instead of drugs.

Every case should be studied on its merits before it can be satisfactorily settled and those who secure the best results for a patient must consider every objection and suggestive eye test of the individual before advising the use of glasses, dypepsia tablets, pepsin wafers or systemic treatment.

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ELECTRO-THERAPEUTICS

By WILLIAM R. D. BLACKWOOD, M. D., Philadelphia, Pa.

(Continued from Page 34 February Recorder)

Many years ago I treated a goodly number of cancers in varied locations, principally mammary, by galvanism, using needles deeply imbedded in the mass, and with fairly good results. Now, however, I would prefer the knife early, and I may say in passing that I do not take any stock whatever in X-rays or "N" rays in anything. They are more dangerous than the diseases themselves and really so to the operator —an X-ray burn is hard to get rid of —let it alone except for diagnosis of foreign bodies where it is O. K.

I spoke in the January Recorder of an experience in war times, and I will narrate another which came along in Knoxville, Tenn., during the siege of that place by Longstreet. We had but eighteen hundred men to defend our long line whilst the Johnny had twenty-seven thousand but he failed to capture our works in his memorable charge. A number of his brave men, however, actually got into Fort Sanders, the main defense of our line on the river side, and they were very badly used up so we sent them to the hospital in the court-house, a four story building with a well in the center of the great hall. This light-well ran up through the four stories, and the night of Longstreet's charge, I was sitting up as officer of the day looking after the wounded. About two in the morning I heard the most unearthly sounds that had till then struck my sensitive musical ear, a fearful discord and a mass of terrifying reverberations in the building. Rushing out of the room I yelled for the sentry, and asked him what in the name of God was going on, and he told me that a Scotchman down on the first floor was playing the bagpipes. I told him to kill the fellow, and ran down to do it myself, but he got away in time, and I never found out who he was, but learned that having found a set of pipes somewhere in town he imagined that his serenade at that witching hour was a splendid testimonial to the brave men who were trying to sleep despite their suffering in my hospital. Those of you who know what a dreadful thing bagpipes are can imagine the result of setting up this awful noise in the dead of night under such circumstances.

Next month I will resume my effort to say something about an agent which has a prominent place in therapeutics if rightly handled by those who know how to get the best results out of the medley of information which has made it unintelligible. Today I got a journal which had an article entitled "Electricity Simplified," and which said that a faradic current was made by a coil of very short wire carrying a current of one volt which was made a thousand in the secondary by the current leaking out through the insulation of the primary. Now the weakest cell has a voltage of one and a half, which increases by added cells, two cells, three volts, three, four and a half, and so on—the voltage getting stronger by added cells,

yet the amperes being no greater if there are a hundred cells. The amperes grow by larger surface of the cell electrodes. To get a thousand volts through induction, we must have about a hundred and seventy feet of say eighteen wire in the primary, with a length of from two thousand to twenty-eight hundred feet or No. 30, or 35 in the secondary, and if the primary broke down the insulation it would simply destroy the whole outfit, no induction could or would ensue.

He also spoke of a static machine having several thousand volts. Any such apparatus carries from half a million to a million volts, and I have a twelve plate mica, one which gave three millions, but, of course, less than half a thousandth of an ampere in quantity. Measured by shunts it gave about the two thousandth, two hundredth of an ampere, but the pressure was frightful, the room soon filled with ozone, and soon many of my instruments near the machine became quite rusty from the nascent oxygen thus set free into the air. Another correspondent asks if the power-house workmen are affected by the currents set up, because he knows of a man working in a plant who has chronic diarrhea, and he notes a peculiar lightness of atmosphere in the build ing. This is due also to ozone generated by the large generators, and the magnetism extending from the fields at right angles to the line of revolution, and somewhat, too, to the leakage at the commutators, especially if carbon brushes are used to transfer current from the segments of the commutators to the cables.

Nothing is of such value as electricity in the very common ailments of young girls at the age of puberty. Many such have difficulty starting into their new phase of life, and one of the most frequent maladies is amenorrhoea. Here we can get splendid results from strong faradism or high frequency locally applied by a sponge-electrode over each ovary—the cord being divided as I think I have already spoken of, that is, the last three feet or so of one cord has two ends which can be applied to two handles of any sort, the current being thus divided into halves—the other cord or pole being applied anywhere desired. In amenorrhoea use a vaginal applicator, a small one and pushed well up to the uterus with the other on the uterus, the ovaries, and the genito-spinal centre on the back. So with painful periods, use strong faradic, alternating with galvanism just prior to the flow, or, even during it if necessary. Be careful to exclude pregnancy if intra-uterine work is done, for then you would have abortion for sure. I wonder why professional abortionists do not use this method, it would be safer than their scrapings, or whatever they do. Here we have a number of deaths yearly from malpractitioners through metritis, but I never had any trouble follow electrical work extra- or intra-uterine and I believe that electricity will not cause abortion applied to a pregnant abdomen, unless it is intra-uterine, but if I suspect pregnancy, I don't use electricity at all.

We spoke of amenorrhoea and dysmenorrhoea, and now I will talk a little about flexions, something which causes much suffering in women especially at the menstrual period. The blood not being readily passed when there is a bad bend above the cervix clots, and is at some times forced out with pains just like that of labor, it really is a labor pain. Now electricity has the power to reduce spasm greatly, and in strictures of the urethra we can pass a bougie or catheter two sizes larger under galvanism than we can without it, and do this without drawing one drop of blood. So in flexions, galvanism will soften up the bend readily, and then it is an easy matter to straighten it out, at least it is easier to do so under electricity than without it. Use

the negative in the womb or urethra, with a mild current, and, if in withdrawing the electrode, it seems to stick, which it will often do, don't pull—reverse the current for a moment just drawing a mite till it comes out easily. The reason for sticking is that the copper of the electrode beomes oxidized and roughens, it grabs the mucous membrane and if you pull forcibly it will tear and bleed, no harm is done thus so far as I can see from experience, but it is just as easy to reverse and get it out quietly as to employ force.

I may have been misunderstood about never having had trouble in uterine work under electricity, because I spoke about abortionists. What I meant is that no trouble has happened in any uterine work such as metretis, endometretis, or peritonitis, and, of course, I could not apply a current if I knew that the woman might be pregnant—that is not intra-uterine. I would not hesitate to apply it outside the abdomen for neuralgia, as an example. Fully one-half of all my office practice electrically is in the way of ovarian enlargement or neuralgia in those pestiferous bodies and you all know how much reflex trouble comes from pelvic diseases in women. Lots of cases where good physicians were unable to do much, and frequently nothing for the patient, was because the doctor overlooked the foundation cause being not local, as the symptoms appeared, but because the real trouble was in the uterus or ovaries the affair being quite like the morning sickness of pregnancy, for example.

Now I will note a few applying electrodes—I used to have a hunderd, some of my own invention, but now I use not more than a dozen except in a few cases where complexity comes in. You should have half a dozen handles with disks of copper or brass well nickle-plated, an inch or one and a half in diameter, the cord being fastened by a pin at the extreme end of the handle farthest from the disk, and always use twisted wire, not tinsel. Cover these disks with absorbent cotton held on by a rubber band, and wet well with water, adding before beginning the application some of the liquid I spoke of in my first or second paper, bichloride, oil of cloves and alcohol. Borolyptol is very good, I use it frequently; so is alphasol and listerine. You need a vaginal one, and two or three intra-uterine ones made like a sound, but insulated to the olive pointed extremity. The vaginal will serve for the rectum. A wire brush for skin excitement is nice, so is a roller electrode for electrical massage. One or two small pointed rods are good for applications to minute nerve-points in paralysis. The uterine ones do for urethral bougies, but have a few insulated catheters also for galvanism and faradism, but if you employ static you will, of course, get a lot of funny-looking contraptions, some of which are useful, but the most not so at all. High-frequency with X-rays are applied by Giesler tubes or like electrodes. Keep all of them very clean and aseptic.

PRACTICAL TEACHING.

A medical school should be a place where medicine is practiced by students instead of a place where students prepare to practice. Teaching in medicine which has for its chief and final aim the diagnosis of disease, is pernicious because it tends to generate a sense of contentment and triumph over the arrival at a diagnosis, because it appoints at the journey's end what should be but a breathing place, because there goes with this emphasis of investigation to predicate a diagnosis, the implication, at least, that with the diagnosis made, investigation can cease and treatment begin.—E. R. LeCount, in Science.

SOME REMARKS REGARDING ANALGESICS AND HYPNOTICS

By GEORGE L. SERVOSS, M. D., Fairview, Nevada

When one sees a doctor using his hypodermic syringe in case after case, regardless of the indications and existing conditions he wonders how many patients will become habitual users of the drugs employed, more particularly morphine. Many of those who make a practice of relieving pain, or other intolerable symptoms for that matter, without first endeavoring to isolate the cause and make a full diagnosis, very frequently resort to the hypodermic medication and use the opiates where they absolutely are not indicated and where other antispasmodics or somnifacients would be of more proper use.

Not infrequently do we find, associated with toxemia, due to absorption of toxins from the bowel, not only pain of a vague nature but many other symptoms, as nervousness, insomnia, anorexia and numerous other indications signifying that the functions are not in their normal condition. If the opiates are employed in combating such symptoms we find that, although there is some relief obtained for the time being, the subsequent conditions are augmented. In such instances the opium products interfere with the excretory functions, and while obtunding nerve action for the time being allow a larger accumulation of the toxins to pile up within the economy. In such cases hyoscyamine is far preferable to any of the opium products as an analgesic, as it does not interfere with excretion and its prolonged use does not provoke tolerance or habit. It will be found that, thorough clearing the bowel of matter which should be normally excreted will frequently be followed by a complete disappearance of all the symptoms brought about through the absorption of toxins and that no analgesics will be required to obtund pain. Opium and opium products should never be employed as somnifacients. Of the plant drugs it is probably that hyoscine is the best somnifacient we possess. There are several coal tar hypnotics, of which it is probable that sodium diethyl-barbiturate is the preferable. Either of these agents, in full therapeutic dosage, produces sleep which is very nearly natural and from which the patient awakes feeling refreshed, as would be the case after natural slumber. In the insomnia of some of the acute infectious diseases, the latter agent is probably the preferable one to employ. It is said to have but little depressing action upon the heart and even when used over a considerable period does not produce a pronounced tolerance.

When opium or its alkaloids are employed, it will be found that, in the course of time, the dose must be increased in order to obtain the initial results and if employed for a considerable period, the dosage will become so large as to be amazing and if care is not used, a habit for the drug will be enforced upon the unsuspecting patient. This condition is not true of either hyoscine or hyoscyamine. In my practice I employ the latter, either alone or in connection with strychnine, or glonoin and strychnine, and have made a careful note of the cases in which it has been used. Even though used over a period of several months to quiet the pain occasioned by a malignant growth in one particular case, I found that it was not necessary to increase the dose and that the patient could drop its use at any time without the least craving for the drug.

In this country, where much alcohol, in one form or another, is consumed, we are frequently called upon to correct the toxemia following. In the majority of such cases we find the patient complaining of vague pains in one portion of the body or other, and

with every indication that one, or all, of the excretory functions are not interfered with. In such cases I have found that a combination of hyoscyamine, colchicine and emetine not only brings about immediate relief, but corrects the lack of function and thus assists in removing the stored up toxins. In such cases I have found that the hyoscyamine element does not interfere in the least with the excretory functions, acting only as an analgesic. If opium, or any of its analgesic alkaloids, were employed in such cases we would find the condition augmented, after the primary effects of the opiate had been passed. In such cases it goes without saying that the emunctories are all stimulated and if the urine is found to be highly acid, an alkaline mixture carrying sodium bicarbonate, sodium sulphate, sodium sulphocarbolate, juglandin, colchicine and xanthoxylin is exhibited until such time the urine if of normal degree of acidity, between thirty and forty degrees, if the Harrower Acidimeter is employed in making the test. It will be found, that when the urine reaches the normal, there will be no indication for the use of any analgesic, as the pain will have disappeared and, if hyoscyamine has been employed, its use may be dropped without fear of any untoward after effects. No tolerance having been established, there will be no tendency to habit.

Every doctor, if he enjoys even a moderate practice, will have seen patients in whom the habit for morphine has been induced through the use of that drug as an analgesic over a considerable period following surgical operations. The use of the drug in such instances is a crime in every sense of the word, and more particularly so, if continued over an extended period. It has been my ill fortune to have come in contact with a case of this sort within a few months since. The patient in this instance, some five or six years ago, suffered from a pelvic abscess, which did not submit immediately, even after surgical interference, and for a period of some three months, to overcome the pain which was present at all times when she was not under the effect of an analgesic, morphine was administered repeatedly and at the time she left the hospital, tolerance and the habit were firmly established. Like all habitual users of the drug, she gave every reason, excepting the right one, for the use of drug. A few months ago she made up her mind to quit taking the drug and placed herself under the care of a man in one of the Coast cities. To all intents and purposes the cure in her case has been effectual, as she says that she has not had desire, even in the least, for the drug. How much better it would have been if hyoscyamine had been employed originally in this case as an agent to obtund the pain. Since her return from the Coast I have been called upon to treat her for minor ailments and, in one or two instances have been obliged to employ an antispasmodic. Knowing her past appetite for morphine, I have employed hyoscyamine in its stead and with as good, or better results, than would have obtained from the opium product. Although I used the henbane alkaloid for some little time in the treatment of this patient, its use was dropped when there were no further indications for it, and the patient told me that she had absolutely no desire for another dose. The last instance in which I was called upon to treat this woman was during an attack of zoster, during which time she suffered considerable pain, and which hyoscyamine relieved promptly. She was under my observation for about three weeks at this time, and during that time was given 1-250 grain doses of hyoscyamine at intervals of from one-half to two hours throughout the entire time and I found that this drug accomplished all that I had ever seen following morphine in

like cases. At the end of the time, and when no longer indicated, this agent was dropped, and, as I have said before, without having established either tolerance or any tendency to habit. This is one of the instances in which it would be a flagrant crime to employ even a single dose of morphine. I have watched this case very carefully, in order to observe just what effect would follow the use of the henbane product and in addition to the objective symptoms, I have questioned the patient very carefully regarding her experience as to the effect of the drug. Her replies would seem to the effect that, not only has the drug kept her free from pain, but in addition has allowed her natural and refreshing sleep. She says that, unlike morphine, hyoscyamine, even when pushed to full therapeutic effect, has not been productive of hallucinations. In this case, as in many others, I have found that, instead of increasing the dose of the drug to attain and hold the effect, I have been able to gradually increase the interval between exhibitions and still retain the full therapeutic effect. In other words the dosage was decreased, rather than increased, showing absolutely that no tolerance was being established. As this woman shows a marked susceptibility to the action of hyoscyamine, it would undoubtedly have been the preferable drug to have employed when morphine was given at the time she was under treatment for the pelvic abscess. Had it been employed at that time, she would never have become an habitual drug user and would undoubtedly have retained an enviable position in society, which was lost because of her use of the drug. The man who started this woman downward as a habitual user of morphine, was as guilty of a crime against society, as is the murderer, or thief, or procurer, and every doctor who employs this drug without thought of the future possibilities is likewise as guilty.

I do not contend that opium and its alkaloids have absolutely no position, worthy of consideration, in the drug world, as they are undoubtedly valuable, under certain indications, but they are drugs to be employed with care in every instance, and should never be continued for any extended period.

Whenever it is thought that opiates, or other analgesics or hypnotics, are indicated, no drug should be administered without first making a conclusive diagnosis and discovering, if possible, the true cause of the condition under treatment, as it will frequently be found that there is absolutely no indication for the agents, excepting possibly to overcome acute symptoms, and that when other agents have been employed and have become effective all of the symptoms indicative of the use of spasmodics will have disappeared.

As a rule, the best place, and the most effective one as well, for the hypodermic syringe and morphine tablet is either in the pocket of the doctor, or in his medicine case, and to be taken from such receptacle only in the emergency, and used only to overcome the initial symptoms at such times. Morphine is the ammunition which should be with the doctor at all times, but like the big guns should be employed only to protect the advance of the more effective army of drugs which act as curative agents and not obscurers of the real conditions.

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Yates, in a paper in the Leucocyte, illustrated by radiographs, shows pretty conclusively that soft rubber tubes introduced into the rectum never, or very rarely, reach the colon. When fluid is injected into the rectum, it is undoubtedly passed into the colon by reversed peristalsis. A tube longer than five inches is unnecessary.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 33 February Recorder)

In 1850, Dr. Alonzo Clark gave out the information that opium was the sheet anchor in peritonitis, although Sydenham, over two hundred years ago, thanked God that there was such a remedy as poppies for the disease. In early times it was given after bleeding, to prolong the effects of venesection. By careful observation, Clark discovered the good effects were due to this remedy so given. Digitalis was regarded as purely a cardiac sedative, and this without cumulative power; but it is now known to be the most reliable and safe cardiac tonic, by increasing the tonicity of the muscular structure of the heart.

The handicap of the physicans of fifty years ago was great, as they were not blessed with the inventions of this day, which help dignosis, and indicate unerringly the febrile conditions, which were only guessed at in ancient times. In early times patients were thought to be convalescent when the tongue had cleaned, and become moist, the pulse slow, and the skin cool and perspiring; but in which we regarded as relapses, as now we know that, had we possessed the thermometer to test the temperature, we would have found that perhaps high fever still existed. The developments in physiology and pathology of the nervous system have been so great, that a work written a few years ago, would be behind the times, and misguiding in theory and practice. The report on the progress of medicine fifty years ago, and the teachings of Bowen and Hall, were regarded as new and valuable, but their views as to the functions of the spinal cord have since been clearly disproven by the experiments of Fritch, Hitzig,and Nothnagel, whereby its irritability is clearly established, also the localization of the cerebral functions.

The chemical theories of Lovoister and Liebig on the production of animal heat by combustion, no longer prove satisfactory, and we confidently look forward to the discovery of a heat center in the brain. and experiments now being made by Wood, have given much encouragement that in the near future it will be found. The latter theory is much in accordance with other known principles of vital force, and the action of nerve sedatives in reducing high temperature in disease. It is a fact that constitutional disease is often attended with local manifestations, and on the other hand, local disease often exists, subjective symptoms, or reflex disturbances so well marked as to entirely obscure the cause, and the true physican will look to all the conditions of his patient, and not blindly, or with prejudice, act with any exclusive ideas.

Great advancement has been made within fifty years, in the treatment of surgical diseases of women. Fifty years ago, benign diseases of the cervix uteri were regarded and treated as malignant. Dr. Henry Bennett, of London, discovered the error, and thus removed them from the domain of the malignant, to that of inflammation, with its accompanying results. Not long after, Dr. Emmet discovered that what Bennet had seen as inflammation, was generally laceration, and its accompanying results—eversion, hypertrophy, abrasion, displacement, etc., etc., and the appropriate treatment whereby a cure is effected in a short time. Ovarian tumors, in our student days, only seen in cases where nothing could be done; notwithstanding Dr. McDowell, between 1809, and 1830, had operated on thirteen cases, eight of which were successful; and New Ovariotomy is shown by statistics, to be the most successful of the major operations.

Fifty years ago it was regarded as hopeless if a patient was afflicted with pleural abscess. Now since the days of Bowditch, operative treatment has become recognized as entirely successful and imperative, if life is to be saved. Strange, in the light of ,the present, that there was a time when thoracentesis was regarded as not only useless, but barbarous.

On another line of thought I will say that we have learned to more and more recognize the influence of the mind on the body and to see in this factor a power to both produce and cure diseases, especially of the nervous type. the subject is yet in process of development, and how much may come of it, remains to be determined by farther experiment and investigation. We know there is a wonderful power in suggestion and mental therapeutics is growing. If there can be that union of physiology and psychology, separated from a religious fear of materialism it would result in valuable additions to our therapeutic systems. It will be admitted, that, Mind, sitting on its physical throne, as a ruler, depends for its support upon the proper performance of functions by all its subjects—the organs. "The importance of the control of mind over matter, cannot be properly estimated." Until physicans are possessed of this fundamental knowledge, they will not be able to determine what part of the histories of patients, detailed to them is due to disturbed metabolism, and how much may be credited to an exaggerating imagination, or willful mendacity. Nor will they be able to have persons really ill, recover under so-called Christian Science, when neither Christ nor science had any association with the management. But they will realize that the condition, so far as the medicine is concerned, is a shortage of knowledge, and a misapplication of mental endowments by the parties to the affair. Most of the adherents of Christian Science are good people who do not understand the nature and function of mind; whose lack of knowledge, and surplus of faith, work mischief in medical affairs only when the disease submitted to their care, is beyond the "Vis Medicatix Naturae," assisted by the patient's conviction of the truth of the fad on which he relies for help. There are other claim to direct assistance from Heaven to prevent or abort disease. They are similar to Christian Scientists, and are met and exposed by the same arguments. Now this line of thought may not properly come under the head of "Medical Progress" but it is progress to meet and refute error, in the interest of true science. Along the mental phase, it is yet true as in olden times, crowds jostle and crowd around the hypnotist, the osteopath, the fake electrician, and all manner of pretenders, just as they did in ancient times, when they resorted to charms, incantations, sorcery, astrology, sooth-sayers, and various other faith cure practitioners. It has been thus for centuries, and will be so for centuries to come, as the dear people are both ignorant of true science, and love to be humbugged.

With all the humbugs with which the practice has been, and is yet, there is still progress and steady development in honest endeavor to practice medicine scientifically and intelligently. True medicine has not lagged in the march of progress. It has advanced in experimental manipulations, and philosophic research and reasoning. Fifty years ago, or perhaps less, the science of medicine began to undergo a sort of revolution which was the effect of experimental demonstration, by which new truths were brought forth, and erroneous theories relegated to oblivion. Since that period, no one is conceded the right to speak, or write "ex-cathedra" and no professional man's theories find favor among cultured physicans, until they are proven to rest upon established facts.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

SOCIALISM VS. ENDEAVOR.

We who read The Recorder have seen quite a lengthy discussion on the subject of socialism, remarks having been made both pro and con, and without reaching any definite point, other than it is possible that there is something wrong with the business management of our government affairs, or that certain of our citizens are not getting what they consider their share of the good things of the world. I have been in a hot bed of socialism for several years and have had it brought to my notice time and again and have found that the ones who believed it to be a panacea for all of the ills of the government were men who either could not, or would not, gain the good things through any great personal endeavor on their own part. Most of the discussions have been held in the saloons, aided and abetted by the action of alcohol. I have noticed that these men were socialists either because of the fact that it was impossible for them to "make good," either through ignorance or inattention, or that they were too lazy to do their work properly and profitably to their employers. The average socialist is a man who has nothing at stake himself, and never will have, as he prefers sitting around cursing those in a position to do things, rather than make an honest endeavor to place himself in like position. In other words, the socialist is invariably the man with the "grouch" who "sees red" at the least provocation.

Not only have I noticed the socialist among the employed classes, but have had the advantage of meeting employers of labor who in turn were socialists, and they were so because of the fact that they were not as successful as were their brothers in business, and in a very considerable percentage of instances this has been due entirely to lack of personal endeavor.

The labor socialist contends that he should have the benefit of all he produces, but fails to take into consideration that much work is unproductive, or at least for the time being, and when asked to take a chance in such work, invariably refuses, as he says that his work should be paid for, no matter if it may not be profitable. Not long since a socialist told a mine manager that he thought that all of the ore stoped by him should be his, in that it was entirely through his endeavor that such ore was unearthed, but when asked if he would take a chance and share the expense of sinking a shaft in virgin territory, where the striking of ore was problematical, refused, saying that there might be no production from such work.

I have noticed that we find no socialists among those who make an honest endeavor to further their own interests, following the prime law of nature and protecting number one, regardless of their neighbors. Such men have little time for fault finding as all of their moments are taken up in affairs worthy of attention, and they ultimately receive more of the benefits of their personal production than do those who would "hog it all," as would the average, so-called socialist.

In a certain part of this country are a lot of farmers who are reclaiming virgin territory. Of possibly two thousand such men, ten per cent are socialists, and it is easy to pick out the farms belonging to this class, as they do not

show the benefits of endeavor, as do those of the men who are going ahead, regardless of all obstacles and making their ground productive and paying. I have noticed that these socialists soon forget such policy when their farms are at last profitably productive and that they become less charitable than are they of the capitalistic class.

We read lengthy papers from socialistic doctors in which they endeavor to bring out the beauties of this idea, but do we ever see a single paper from these men which would be of the least benefit to humanity or to the profession on medical subjects? If we do, I have failed to find such articles. As such articles are not forthcoming it is apparent to me that the average socialistic doctor gives more attention to this idea than to his professional work and, although such men may be fairly successful as practitioners, they always remain in the mediocre class, so far as medicine is concerned. They must be failures from a financial standpoint, else they would not be looking outside their profession for an easy way to gain a livelihood, or if their professional work were unproductive, would be making an endeavor in other lines.

Primarily, lack of endeavor has much to do with the fostering of the socialitic idea, while secondarily we find that selfishness is a marked factor. In fact, in the majority of instances, socialism should be spelled selfishness, as the majority of the arguments of the members of the socialistic body are absolutely selfish. As in all organization, in which money is any consideration, we find that the socialistic party is a graft for a chosen few, who not only feather their nests from the receipts from members of the party but who foster the idea through inflammatory arguments, which breed continual discontent. In not a single of the socialistic organs will we find a single argument advanced which would bring the employer and employed closer together. In fact, the reverse is true in every instance and the employer, no matter how fairly he may play the game, is accused of everything low in nature, and the employed is taught to hate, rather than love the man who gives him an opportunity to gain his daily bread.

Socialism is going to continue in existence just as long as men are discontented with their lot in life, or just as long as they will listen to the agitations of others who would be renumerated through bringing about and fostering such discontent. If, instead of sitting aimlessly about and finding fault with their conditions, men would put forth endeavor to benefit themselves primarily and their neighbors secondarily, the socialistic idea would rapidly become a matter of past history. Let the doctor give the same amount of time to research that he gives to the study of socialism and he will find that not only will he profit thereby, but that he will become of more value to his patients and to the profession at large. He will have something of a definite value to discuss and will make both himself and the world better through his studies, and he will sow the seeds of content, rather than discontent.

All classes might as well accept the fact that we will always have a certain few men among us who will be more prosperous than the balance of humanity, and that they will gain their prosperity, primarily through honest endeavor and that they will continue prosperous through continued endeavor. Government ownership will not solve the problems any more than will private ownership, as it will always remain a case of the survival of the fittest, and the government clerk who makes an honest endeavor will achieve higher position than will he who holds his position by doing what is required of him, and nothing more. If all the utilities were turned over to government control there would be more "jobs" and

consequently more political trickery and favor would be shown, as at present, to the party workers, despite the party with which they might be affiliated. Again we would see that endeavor would be rewarded and the affairs of the government would be as "rotten" as they are said to be at present, by those who do not happen to be receiving sinecures at the hands of those who happen to be in power.

If we were all to make an honest endeavor to better our condition in life, through honest labor, optimism would be the rule and we would individually be of more service to the world at large. Let the doctor who studies and writes on the subject of socialism give as much time to the study of, and writing about, some special or general medical subject and he would not find time to find fault with either himself or his neighbors and he would be a better and broader man and a benefit to his profession and the world at large.

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INDIVIDUALISM VS. SOCIALISM.

I have been much interested in, amused, and at times a little disgusted by the controversy on socialism in recent issues of The Medical Recorder. Drs. Mastin and Field have both said some very good things, pro and con, that are worthy of more than passing notice, and should be carefully scrutinized and reflected upon by all interested in the progress of society and governments. They have said some things, which if not inspiring, are, at least, thought-provoking.

However, to my mind, they represent the very antipodes of sociologic thought; they whirl, as it were, around the circumference of a vast area of human thought and endeavor as an eagle circles around its prey, but fail to anchor at anything more substantial than some untried and unsubstantiated hypothesis. Dr. Field seems to be at the North pole of individualism, while Dr. Mastin is at the no less frigid South pole of socialism; and like Cook and Peary of Arctic fame, they leave us no chart by which their alleged discoveries, or conclusions, can be verified. Dr. Field would leave us sailing without chart or compass on the sea of Frozen Hopes while Dr. Mastin would lure us on by the beautiful but unattainable aurora of socialistic chimeras. Cold comfort that; and we are constrained, with one of old to say: 'Miserable comforters are ye all.'' The trouble with most individualists is, they are far too individualistic; and the great trouble with most socialists is, they are far too socialistic. They seem to be thoroughly imbued with the idea that if a little physic is good a great deal would be much better and certainly effect a cure. If all parties to the controversy could agree to leave the evolution of their "air castles" to future generations, and get together on a working formula for the betterment of society, here and now, much more practical good might be done. It is not rainbow tinted theories of government that we are so much in need of as demonstrations of practical facts that make for the moral uplift of humanity in general, by the uplift of individuals in particular. The roseate hues of the socialistic aurora are absolutely useless in the reclamation service of humanitarians, and the perfumes of the Orient would be deadly poisons when wafted from the hands of a Rockefeller or a Carnegie. The one is as alluring as a will-of-the-wisp, while the other stealthily poisons the fountain source of knowledge and makes wisdom synonymous with the glitter of gold.

The novice in sociology is apt to lose sight of the very important fact that all republican forms of governmene must of necessity, possess qualities that are both individualistic and socialistic;

individualistic, in so far as the individual, as such, is concerned; and socialistic where the functions of government alone are concerned. The point at which these opposing forces meet and coalesce, or amalgamate, is found the fulcrum upon which such governments are balanced; and, paradoxial as it may seem to some, it is a fact that when the political see-saw is much out of balance, when either individualism or socialism is much in the ascendancy we are threatened with exactly the same form of tyrrany and despotism. The reason seems obvious; as the ultimate aim of individualism is tyranny, the power to govern and compel, while socialism could no more support itself without the exercise of this power than a hog could fly to Mars with no other propelling force than its own grunt.

The essential basis of all government is force, either active or potential. A government or social aggregation without power to enforce obedience to its laws and mandates, where every man is a law unto himself, and the superior force of individuals is the only arbiter of morality and justice, is unthinkable. Such social condition, supposing it to exist, would represent the lowest and worst form of anarchy; and it would certainly make no real difference to society, in general, whether this condition was forced upon it by the innate lawlessness of the social substratum or whether the storm clouds gathered in the lethal atmosphere of "frenzied finance" and bon ton and tinsled immoralities, to spend its fury in the destruction of true manhood and true womanhood. The effect of lightning is the same whatever the direction from which it comes. Even now there is valid and astonishing evidence that the storm cloud of rabid and rampant individualism under the euphonious title of "New Nationalism" is gathering in the political horizon, and when its thunders roll and lightnings flash, no one should be surprised if the great masses of common people should take refuge in the unexplored and dimly lighted caves of socialism rather than tamely submit to the dictates of some modern Shylock whose only claim to the imperial purple is a vast accumulation of blood-stained wealth. The anarchy of the grossly rich and the socialism of the untutored poor—twin vices from the scum and spawn of political corruption—sickens the soul in contemplation of its possibilities.

Mr. W. J. Bryan and Mr. Champ Clark have denounced the "new nationalism" as a virulent form of treason to our government, but their denunciations scarcely produce a ripple on the great sea of politics or find a responsive chord in the apathetic hearts of the common people. And this apathetic condition can only be interpreted as substantial evidence that sordid wealth rather than intellectual statesmanship is at the helm of our ship of state, and exerting a blighting and withering influence where patriotism should thrive most luxuriantly.

Any government may use moderation in the application of the principles upon which it is founded, and may even amalgamate, to a certain extent, with the principles of one or more other forms and still maintain a beneficial existence. But, it is safe to say, no government has ever existed, and it is extermely doubtful if one could long endure, as either purely individualistic, socialistic, democratic, imperialistic or anarchistic. The truly elective form of government, the democratic republic, as outlined in the Declaration of Independence and the Federal Constitution as expounded by Thomas Jefferson and insisted upon by his disciples, combining the best of all previously existing forms of governments, as demonstrated by history, and our own experience, is ideal in theory; and when the equipose between vitiating tendencies has been studiously maintained, Liberty enlightening the World

was her true symbol. At the present time extreme individualism on the one hand, and extreme socialism on the other, are befogging the common people and obscuring the light of that Liberty which should find its motive force, or inspiration, in the enlightened conscience of an earnest and patriotic citizenship.

As any form of government may be admirable in theory and abominable in practice, so, many very intelligent citizens find, or think they find, the practices of our government diverging farther and farther, even to the point of extreme danger, from the original democratic principles and intentions of its founders, and almost overwhelmingly vitiated by the substitution of principles radically individualistic, and ending inordinately towards the overthrow of democracy and the establishment of an imperialistic form of government. This belief is no chimera, or intellectual hallucination; it is embodied in the daily conversation of the comon people and more or less darkly hinted at by statesmen who cannot be accused of sensationalism.

The ascendancy and thorough organization of the forces of individualism in this country, with their unparalleled achievements and fabulous accumulations of wealth have bewildered not only the minds of the common people but of politicians and statesmen, and produced an apathetic condition that is dangerous alike to individuals and the government. Everywhere, among the common people, the keynote of their political creed is despair. Why should we be surprised if they, fearing the well known selfishness, greed for gold and power, of individualism, should seek refuge from it in the unexplored and dimly lighted caves of socialism?

Come, let us calmly and considerately reason together, rather than fly, precipitately, to ills we know not of.

Dr. J. W. Lockhart.

SOCIALISM.

Dr. D. L. Field writes on Socialism in the January number of The Recorder. While it is evident that the doctor does not understand socialism yet his comments are amusing. He is good at taking a rap at people in general yet I imagine he would feel very much offended if anyone tried to make him see that he is part of that 'mass" he so ably derides. He objects to the people managing the utilities but he does not seem to realize that it is exactly what they are doing now, only they are managing them for the benefit of someone else. He says that "Socialists do not give any specific tenet of their creed."

One of the most vital principles of socialistic economic philosophy is that all things used in comon shall be owned in common. Now let us go back to these utilities a moment. The common utilities of this country, by which we mean the things used in production and distribution, are used and managed by the people now, but are owned privately. This puts us in the anomalous position of having all these things used in common but owned privately. Upon this vital point—ownership—the industrial and political question involved hinges.

What then is ownership? Blackstone tells us that it is a legal fiction—something that is assumed to be a fact for legal purposes. He tells us that it has no foundation in natural law. Now the workers possess the means of production and distribution—they possess and use them but they do not own them.

All values above the subsistence wage are diverted to ownership under our present system. Since ownership is a law-made fiction, and proves such a powerful magnet for values, we Socialists believe that it will be well for the people if they will take over this ownership unto themselves and thus retain all values to those who created thm. The doctor says this cannot and never will be done.

He ignores the fact that during the progress of civilization ownership has shifted from the people to various classes and is now largely vested in law-made paper gods called corporations. The change has been made from one man to a part of the "mass." It needs only to pass from a part of the "mass" to the whole "mass."

We have watched the evolution of civilization long enough to note its direction. We know that evolution goes constantly forward. We seek but to aid that movement—and we cannot fail.

E. I. Raymond, M. D.
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THE COST OF IT ANNUALLY.

The cost of the intoxicating liquors, as a beverage, in the United States, is over $400,000,000. Add to it $100,000,000 for the care of drunkards, and their helpless and homeless families and $25,000,000 for the burying of the drunkards, $25,000,000 for the loss of property and business, as much for the cost of sheriffs and attorneys it has employed, not to speak of the cost of crime, and the expense to the tax payers in enforcing the law against criminal drunkards—and all has not been told even at that.

An ingenious computation of the annual cost is illustrated thus: If the cost were silver dollars, and you were to count them at the rate of twenty-five a minute, working twelve hours a day, it would take you sixty years to count them. If they were dollar bills spread out in a continuous line, it would reach 35,000 miles, and would go around the globe, and a quarter round again.

This is the annual cost; which leaves out of the calculation, broken hearts and wrecked homes. Also leaves out the thousands who go to premature graves; leaves out the moral and mental decay, the heart aches, the tears, and the humiliation and despair. Yet there are people who would vote to perpetuate the evil.

D. L. Field, M. D.

OSTEOPATHY.

As short articles are more often read by the average doctor than long ones, I will write a short one on osteopathy. In the past few years osteopathy has cut quite a figure in many localities. It has been legalized in several states either by a state board of osteopathic examiners or an osteopath on the regular examining board.

Osteopathy has many points of value that the average physician has overlooked and this is the reason it has flourished. It is not a complete system of treatment but of value only in a very narrow range, same as thermotherapy, photo-therapy, electro-therapy, etc. Osteopathy is nothing but massage with a few new movements, many that are of no value. Vibratory therapy covers osteopathy and all other forms of massage and is far superior when in the hands of a regular physician who knows how to use a good vibrator. Apparatus of various kinds have taken the place of hand work. Vibratory treatment with a good vibrator can be given much quicker and better results obtained than osteopathic treatment or hand massage of any kind can be given. We do not need any osteopathic state boards or any osteopathic members on the so called mixed boards. If anyone wishes to practice medicine in any of its ranches they should be regularly licensed by the state board. If various cults and chips from the medical profession are allowed state boards we will soon have osteopathic, chiropractic, bone doctor, optician, mid-wife and various other kinds of state boards which will be a disgrace to medicine. We do not need

any half educated "healers" or practitioners with no medical training at all as the so called opticians.

It is a strange thing that opticians are allowed to practice and treat all forms of disease of the eye in most states when this is a difficult branch, hard to understand and requires experience to be fitted for it. No regularly educated physician would think of entering on the practice of diseases of the eye and fiting glasses without special training in this branch. No reputable physician in general practice would pretend to treat diseases of the eye, only the most simple cases and would send the rest to some specialist on this branch.

Vibratory therapy is a good field for specialism the same as many other branches. And so-called osteopathy and the partially educated physicians that style themselves as osteopaths should be supplanted by specialists in vibratory therapy who are regular educated physicians.

J. A. Burnett, M. D.

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Just a word to the learned Dr. Leon, of Mt. Olive, Ill. What I said of the ℞, as being used by the ancient Greeks as a prayer abbreviation, is true; at all events, they used a similar sign. I know, as every other intelligent man does, that ℞ stands for Recipe,—meaning take. And let me acquaint my friend, Dr. L. that your humble servant prides himself on being a Latin scholar, who laboriously wrestled with the "dead language," over four years, and became able to read and translate Virgil. I also put in two or three years studying Greek. When I attended medical college, I was complimented on my knowledge of Latin. As that language is employed in defining the form, location and function or office of the various parts of the body, it gave me no trouble to thus name the parts of the body. Every student of medicine should be familiar with Latin.

D. L. Field, M. D.
Jeffersonville, Iowa.

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OPIUM

When Dr. Eli Jones in the January Recorder says that in 40 years practice he has not used half a drachm of morphine or opium we must say with all due respect to our venerable brother that he has most assuredly been proudly blessed in not having been called upon in his 40 years practice to relieve "bad pains of bellyache" or any other kinds of pains. We will say that in an experience of over 35 years if we had not in many, many instances used morphine in heroic doses our patients would surely have joined the great majority. We would like to witness Dr. Jones' frantic efforts to relieve a patient with "gall stone colic" or a severe attack of intestinal indigestion or an old time case of "bellyache" without the use of opium in some form. In severe attacks of colic in children from causes often unknown a few drops of paregoric will comfort and quiet the little sufferer who a moment before has been twisting with the most excuciating pains. Oh! No, Dr. Jones! You are radically mistaken! Banish opium and calomel from our materia medica and you deprive us of the two most valuable remedies, judiciously administered, known to our profession.

Joseph S. Baldwin, M. D.
Freeland, Md.

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Grosnow suggests that the time of death may be determined by applying atropine to the eye and eserine to the other eye, of the body. In one half to one hour a decided difference in the size of the pupils could be observed, and this lasts several hours. The reaction occurs if the drugs are used within four hours after death but not later.

"The Electro-Therapeutist"

H. C. BENNETT, M. D., M. E., Editor

ELECTRIFICATION AS AN EQUALIZER.

By Homer Clark Bennett, M. D., M. E., Lima, Ohio.

The catalytic action, or the effect on the vaso-motor nervous system and therefore through it, upon the nutrition of the tissues, is the most important action or effect derived from electrification, as applied in therapeutics. This action or effect is two-fold, depending on which pole is employed as the active one. The different poles have each an entirely different effect. The positive pole contracts the capillaries, thus reducing congestion, while the negative pole has the exactly opposite effect, dilating the capillaries and increasing congestion. The effect on the nerves is similarly diametrically opposed, the positive pole or anode acting as a sedative and reducing pain, while the negative pole, or cathode, will stimulate and increase pain. These effects follow the application, with but slight modification, no matter which modality is employed, whether it is galvanic, faradic or franklinic, or more correctly speaking, the constant, interrupted or alternated, or static.

All electrification has a tendency to find its level or to establish an equilibrium, and this result will follow whether the derangement be above or below the normal level. Thus an inflammatory condition will be relieved by an equalization of the circulation of the part, and, on the other hand, a cold, anemic condition will be relieved by the same process of equalization of circulation, letting more blood into the part, and warming it.

It is through this process that the conditions of atrophy and hypertrophy are both remedied by the same agent, and although to the uninitiated there is an apparent contradiction, yet when we understand polar effects the seeming paradox is explained.

From this we at once see the great importance, and indeed the necessity, of a careful analysis of the existing conditions to be changed, and why we should fully understand the physics, chemism and physiologic action of the agent before we may attempt to apply it as a remedy in therapeutics.

It is on account of this lack of preparatory knowledge on the part of the doctor that so many miserable failures follow the ignorant use of this remedy, and why so many will condemn it wrongly.

It is an axiom in medicine that anything which is a power for good, when rightly used, is just as much a power for harm, when wrongly used, in direct proportion to its potential, and this applies very forcibly to electrification in therapeutics.

A well-read doctor, one successful and posted in his line, will fail to relieve some certain condition, although he may try all the usual treatments, and he will hear or read of a certain man who achieved splendid results in just that class of cases by means of electric treatments. No details are given and it sounds easy.

Of course, he also wants to succeed, so he gets a battery or machine, and reads the directions which accompany it, and he installs the plant, and is ready for business forthwith.

Along comes a case like the other one, or he may send for the first case, which he is now sure he can cure, because the other fellow did, and he now has the same tools with which to work. Suppose it is a case of acute neuritis, with pain, swelling, congestion and inflammation,

which may, if improperly treated, result in complete degeneration of the nerve, with subsequent loss of function and total and and incurable paralysis and deformity through atrophy.

Here is a case calling for extreme care, not only in the diagnosis, which he is capable of making, but also in the treatment, which his ignorance of the laws of electrification renders him not only incapable of treating, but absolutely dangerous on account of his reputation and professional standing in the community.

Here is a case calling for the soothing sedative, constringent, cooling, anodyne effects of a mild application of dynamic electrification, with the positive pole active, the use of which will be followed by more or less immediate relief of the distressing pain, and the ultimate recovery of the normal equilibrium.

Not knowing this, he has two ways to apply, and it is just as likely as not that he uses the wrong pole. If he should blunder on the right track, and relieve the patient for the time being, he is delighted and thinks it is just the right thing, and becomes enthusiastic and interested. Next day the patient returns feeling as badly or nearly as bad as before. He can fix that all right; did he not do it before, and what has been done can be done again. He applies the electrodes as before, but by chance gets the poles reversed, and the pain is increased, so he turns on more and more current, because he believes that "if a little is good, more is better," till the patient will not longer tolerate the mistreatment, and he goes away, firmly convinced of one of two things, viz., either the remedy is wrong, or the doctor does not understand his business, and if the patient is shrewd, and especially if he is frantic with pain, knowing that he got prompt relief once, and wanting it again, he will go to some other doctor who has a battery and try it again. Should he go to some one who has the proper "know how," then he is in good hands and is cured. What is the result? That patient is a warm friend of the second doctor and the enemy to the first, and he is not slow to express his opinion both ways. The second doctor gets more credit, and more patients and more fame.

He is the scientific fellow, with a reason for whatever application he makes. The first doctor is first perplexed, then chagrined, then angered, and if he be unreasonable and not an investigator, he will very likely throw aside his battery and declare it is all a sham and a delusion and snare, a scheme of shrewd manufacturers to sell goods and separate the unsophisticated doctors from their hard-earned dollars, and he condemns the whole thing to perdition, and forever after is "forninst" electro-therapeutics and especially loud in his denunciation (when the second man is not present), of the methods employed by some doctors to get patients away from their fellow practicians.

This is a dark picture, but from actual experience and observation I assure you it is not an unusual one.

There is another phase to this subject. Now, if the first doctor is a reasonable, well-balanced, liberal, progressive man, not bound up in the cerements of his own egotism, he will at once begin to inquire as to the reasons why, and will investigate, and his eyes will be opened soon to the fact that there is some system to all this, and the uniformity of results derived by his competitor is not the outcome of mere chance, but a natural consequence of the action of certain fixed laws, which are more immutable than those of the ancient Medes and Persians.

When he reaches this stage, there are hopes that "if convalescence does not set in too hard, he will recover." He sets about to learn the whys and wherefores, and soon sees where he fell down, and resolves never to let it occur again. He gets the "know how," and goes to work on a scientific basis, and gets uniformly satisfactory results, and he consults with the other fellow and they are mutual friends instead of enemies, and

the patient, seeing this, thinks that maybe there was some fault of his, and more than likely "shuts up," or later goes again to his former doctor for other relief.

There is no guesswork about this. Facts are stubborn things, and science is the sum of demonstrated facts, and electro-therapeutics is a science requiring careful study and a full understanding in order to achieve success. It is the little things that make or mar success, and success is not a little thing, but the sum and end of all effort with things.

Right along this line I want to quote from a letter written by just such a man as we last described, who had tried and was not satisfied, but who was not a "quitter." He lives in a fine town in Illinois, and this is what he says in his letter:

Dear Doctor:—I want to say that I have never been convinced of the influence that the various forms of electrical treatment have over the functions of the body till I commenced to study your course of lessons in electro-therapeutics. A few days ago I placed a patient with a rapid heart, due to functional trouble, on the insulated static platform and gave him the positive insulation for twenty minutes. When I put him on, his heart beat 98 per minute; and when I took him off, it beat only 80 per minute, and after the treatment it went down to 76. I want to say that the man was not excited on account of the proposed application, as might be claimed by many who were acquainted with the power of electrification as an equalizer, as he is a man of a phlegmatic temperament.

Since then he has been taking heart tonics, and has returned, and his pulse has remained about 80. I have also recently had occasion to observe the body temperature raise from sub-normal to the normal, and to see cold hands and feet become warm. Three-fourths of the doctors who are unfamiliar with electric applications and their effects would not believe the above without experiencing it as I have. Electrification is a great equalizer. Yours very truly,

H. D. R.

The above letter is not a rare one, and his experience is not at all uncommon. He is the president of the board of education of his city, and has the confidence of the people in his community, and is a careful searcher after truth.

What is worth doing at all is worth doing well. The "know how" is easily acquired by those who will, and when once learned, the rest is simple.

A great artist was once asked by a jealous and unsuccessful rival with what he mixed his paints to get such superb effects, and received the curt reply: "With brains, sir, with brains."

So if you want to succeed in the practice of electro-therapeutics, you must mix your applications "with brains."

Ed.

QUIZ DEPARTMENT.

DON'T BELIEVE EVERYTHING YOU HEAR.

Don't believe all things ever-lasting.

Don't believe catchy advertisements that claim all manner of work can be accomplished from one device.

Galvanism, faradism, cautery, high-frequency and static electrical manifestations cannot be produced from one mechanical device.

Misstatements are made and published that are extremely misleading, and so worded as to catch the less thoughtful.

Goods are offered to the profession, with the statement that they will perform all work, such as galvanism, cautery, illumination, operating faradic coils, etc., at a low price.

A physician unacquainted with electro-physics believes, makes the purchase, and finds the goods unreliable.

EXAMINATION PROVES THE FOLLOWING GOODS:

A box, cheap coil, and two or four cells of battery. The value paid is excessive for the goods secured.

Why—Same type of cells could be secured from any electrical supply house at an expense of 50 cents each. The coil not exceeding $4.00, the box $1.50, a total of $7.50.

How much galvanism can be administered from two or four cells of battery?

What character of a current from a coil of about 60 feet of wire?

For limited galvanic applications you would require not less than 20 cells of battery.

A fair faradic coil should contain over 2,000 feet of wire, and for reasonable work not less than 4,500 feet.

To light a small, low volt lamp, three cells would be quite sufficient.

Burning a lamp is not cautery—heating a small tip in the air looks pretty—inserted into moist tissue and where is the heat? Don't guess; ask those competent to give you a truthful answer.

Look at the following: what does it indicate: "Will give 8,000 lights without renewal."

Is it flashing the lamp 1-60 of a second for 8,000 times, equal to a few minutes —or burning the lamp for one hour at a time for 8,000 hours, which would equal two years at ten hours a day—the latter condition would solve the problem of lighting, and the cost so trifling as to put to shame even the poor old tallow candle.

DON'T BELIEVE SUCH STATEMENTS.

Any reputable manufacturer will cheerfully give you information, and outline the goods best suited for the conditions you desire.

Don't purchase unreliable goods.

A disheartened physician with a house full of cheap electrical goods, forces a reputable manufacturer to exercise double the work to demonstrate the value of electrical wares.

Remember, that whoever, proposes to sell you a gold dollar in coin, material, or labor for 50 cents, challenges your intelligence for the purpose of fraud.

If his intentions are honest, he could sell the entire lot to a manufacturer, saving traveling expenses and labor.

What is reduced in value to a point below the limit, is done by robbing the material or quality; as the labor has a time value to construct, whether the material is cheap or expensive.

CHEAP MATERIAL IS DEAR AT ANY PRICE.

Don't consider the first cost, but the amount to keep in operation for twelve months.

Combined apparatus are more expensive, grade of goods considered, than devices in separate cases.

Separate devices are very easily transported; allows the physician the opportunity of leaving one at the house of a patient, and one for office work.

Let me suggest that if you will spare the time to write me, I will cheerfully spare the time to answer your queries, if you will enclose a stamp.

I desire to make this department of the Recorder a bureau of electrical information.

Propound all questions you desire, and I will do my best to answer them for you.

Yours fraternally,

H. C. BENNETT, M. D.

Lima, Ohio.

X-RAY

The Medical Brief says editorially that a few years ago the X-ray was lauded as a cure for almost every disease that human flesh is heir to. Then came the reaction and it was claimed by many to possess no therapeutic properties. This equally erroneous position could not be long maintained, and now we recognize its absolute value in certain diseases; its relative value in others, and finally, its utter uselessness in a considerable number.

What is true of the Roentgen ray is equally true of galvanism, high frequency, vibration, etc.

We must look upon each of these from the standpoint of its physiological action and make use of it accordingly.

RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

MEDICAL EDUCATION

Nothing is settled until it is settled right. Until so settled a problem is sure to clamor constantly for reconsideration. That is true in the field of morals, politics, social science, it is equally true in medicine, especially in medical economics. There is for example, the vexed question of division of fees. However much has been said, written and thundered about it, still it comes up again and again in some form or other, often in most unexpected places. More recently the controversy on the character and scope of medical education, the degrees of preliminary education to be required for admission to the study of medicine has greatly agitated medical minds. The much discussed bulletin by the Carnegie Foundation was an attempt to settle it ex cathedra. Has it done so? Certainly not, if any weight attaches to the mass of criticism, objection and dissent which followed it. While all good men are unanimous in the desire to raise the educational status of the profession, very few believe that constitutionally wrong standards have been applied in the Flexner report. This seems to be the opinion also of an educator who has lately acquired prominence, Dr. Vincent, professor of economics in the University of Chicago and newly elected president of the University of Minnesota. In an address to the educational council of the American Medical Association, a body dominated by scholastic influences, at its recent annual session he is reported to have warned them against raising the standard of educational requirements to such unreasonable heights as to make the medical profession a preserve for the well-to-do only.

The Rundschau, having taken the same position, rejoices that this authoritative utterance has been given rather wide publicity in the daily press for the reason that the former unfavorable strictures on our profession, embodied in the Flexner report, were widely promulgated and made the subject of popular comment, much to the detriment of the profession. Shortly after the publication of the official bulletin the matter was presented to the general public in an article in the Outlook by Dr. Pritchett, the head of the Carnegie Foundation. The effect of his overdrawn statements and unfair criticism of the entire medical profession can only have been harmful by destroying the people's confidence in their physician.

His basic proposition is that the vast majority of these men had no adequate preparation in their profession, meaning that the men who graduated more than twenty years ago were not fully trained in the laboratory branches, and the impression is clearly conveyed, though not explicitly expressed, that those men are incompetent. The assertion is arrogant, unreasonable and downright absurd. It would make the field of competency so narrow as to include only the most recent graduates and those for a limited period of years, while excluding not only present leaders like Osler, Billings, Mayo, but also by inference the very men of earlier time whose work led to the evolution of modern medical science, the Kochs, Virchows, Billroths, etc.

The fundamental error of Pritchett and Flexner and those who take their view of medical education lies in the assumption that the day of graduation marks the end of the physician's medical education, when it really marks the beginning. It would probably be more in harmony with facts to say, in opposi-

tion to Doctor Pritchett's dictum that the men who graduated more than twenty years ago are unfit for the practice of medicine, that only those men are adequately fitted for it.

The part of the Flexner report relating to medical colleges has roused the greatest opposition on account of his wholesale denunciation of existing conditions of teaching. Here the same spirit is manifest of attaching too great importance to theoretical and laboratory training. We do not defend the inferior medical school with its short courses of didactic lectures and meagre clinical instruction and we are glad so many of them have gone out of existence during the last few years, but we are not in sympathy, on the other hand, with the scheme of medical education, as exemplified by several of our great state university schools, where the teaching is under the control of theorists, who never saw a day of actual practice and would find it hard to make a living if put out into the field.

The last word on medical education has not yet been spoken. In fact, rigid standards cannot be made for it, for it must keep pace with the progress of general medical science. At pesent we in the United States are in a state of transition. We have barely left behind us the low, inefficient standards of an earlier period, now we must guard against going too rapidly to another extreme, a complete surender to impractical, barren theory.

SALVARSAN.

As the great Ehrlich-Hata remedy against syphilis can now be obtained in the open market, is being used extensively, a word of caution about it is timely. In the first place it should not be administered except in a hospital where the patient can be kept in bed carefully watched and where every precaution can be taken in the technic of administering the remedy. A complete and careful physical examination of the patient is essential, for any suspicion of disease of the heart, blood vessels, or kidneys is a direct contra-indication to its use. A Wasserman test should be made in every case before and soon after the medicine has been given. Various accidents may follow the administration of salvarsan, unless exact attention is paid to every step of the technic. Many such accidents have occurred and been reported. No man should use the remedy who is not fully versed in modern methods. It is a triple edge sword. The limitations given by Ehrlich himself, declaring the preparation useless in the late manifestations of syphilis, especially tabes dorsalis should also be kept in mind. But the chances are that the warnings will be disregarded by enthusiasts and others who habitually act on half-information. The results are likely to be disastrous and disappointments may follow similar to those in the case of Koch's tuberculin.

Opinions regarding the ultimate value of salvarsan are not all settled. While in most acute cases immediate improvement in the serious and obvious symptoms followed the administration of the remedy and the Wassermann reaction changed from positive to negative, there have been some cases reported in which not only did the symptoms not disappear, but grew worse. An increasing number of cases is being recorded in which relapses occurred in some of them a second injection of the remedy had no effect. It is altogether too early to pass final judgment on salvarsan. We must not forget that proper medication by mercurials has also the effect of relieving symptoms and holding them in abeyance. Possibly salvarsan will be found to do this only in a greater degree. For the present it will be most advisable for the general practitioner to rely on known and tried remedies, the mercurials and iodids.

A NEW EARLY SIGN IN POTT'S DISEASE.

It is a well known fact that tuberculosis of the spinal column begins in the anterior portion of the bodies of the vertebrae. Any traction in the part of

(Continued on Page 88)

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer or any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

Society news and reports and items of interest are gladly received.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

VOL. 14 MARCH, 1911 No. 3

A FORGOTTEN DANGER OF ANESTHETICS.

In a reprint from the Charlotte Medical Journal, Virginus Harrison calls attion to a peril from the administration of chloroform and ether, which ought not to be forgotten. He refers to the fact that chloroform and ether administered as anesthetics are capable of producing in the female certain sensations which they convert into the sexual act. So powerful is the impression that on awakening from the anesthetic, they have asserted with full belief that criminal assaults had been made upon them while under the anesthetic. Some surgeons and many dentists have been thus charged and even when acquitted the results have been most expensive to the unfortunate anesthetists. The perils here lie in the fact that the patient is honest in her belief.

Dr. Harrison says there are four stages of anesthesia. In the second there is complete loss of consciousness, but the nervous system is stimulated sensation and muscular activity are often very manifest. If an assault is attempted in the first stage the patient will be awakened and can defend herself. It is in the second stage when the delusions referred to occur. When surgical anesthesia has been reached, the patient could not know if an assault were made, as there is absolute loss of sensation and consciousness. The only stage therefore in which a woman could testify that an assault was made is the first; and in this if successful she incriminates herself, as she could easily defend herself if she chose

The only safety to the physician or other anesthetizer is the presence of persons during the anesthetization whose testimony would be conclusive in the matter. But here again a danger arises, since there may be collusion in an attempt at blackmail, on the part of the patient and the friend who attends her at the time.

No such peril attends anesthesia established by the aid of the hyoscine, morphine and cactin combination. The sexual impulse is sedated by this, and no manifestation of its activity has as yet been reported.

Except in case of emergency no physican should give or is justified in giving an anesthetic himself, while operating. He cannot give the attention to the anesthetic that is necessary, when he is engaged in operating. If anything goes wrong or the physician is falsely accused, the evidence of the second physician is of inestimable value.

THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

A TEXT BOOK OF MENTAL DISEASES. By Eugenio Tanzi, Professor of Psychiatry in the Royal Institute of Higher Studies of Florence. Authorized Translation from the Italian. By W. Ford, Robertson, M. D., C. M., Pathologist to Scottish Asylums, Edinburg, etc., and T. C. MacKenzie, M. D., F. C. P. Edinburg, Medical Superintendent, Inverness District Asylum, etc Pages XVI-803. Illustrated Cloth, Price $7.00. Rebman Company, 1123 Broadway, New York.

Every practitioner needs a modern work on mental diseases in his library and this new book is a veritable encyclopedia on the subject. The expert witness needs the information in this volume but the general practitioner needs it also, as he may be called in court to give testimony at any time. The physicians connected with asylums will appreciate the work and find frequent use for it. Every physician will also find the work needful for the help it will give in the diagnosis and treatment of mental diseases.

"The Seat of the Psychical Processes" is the title of the first chapter, which is an interesting discussion of cerebral localization. The next chapter is on the causes of mental diseases, which are divided into exogenous and endogenous. The exogenous are somatic, psychical and social; the endogenous are diathetic, hereditary and degenerative. These various forms are discussed in detail. The third chapter is an interesing presentation of the pathological anatomy of mental disease.

Several chapters are then devoted to the presentation of sensibility, ideation, memory, and the sentiments After reading these chapters a clear understanding is formed of hallucinations, delusions, illusions, and various psychoses. Chapters are devoted to pellagra, alcoholism, amentia, thyroid psychoses, progressive paralysis, infantile cerbropathies, cerebropathies of adults neurasthenia, hysteria, epilepsy, dementia precox, sexual perversions constitutional immorality, paranoia, and imbecility. An excellent chapter in the history and management of asylums is appended. The work contains 132 illustrations, a few colored. A good index makes the book a convenient work for reference.

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MALARIA AND IT'S MANIFESTATIONS A Careful Study and Presentation with Thorough and Abortive Methods of Treatment. By J H. McCurry, M. D. Pages 177. Cloth, Price $1.00. Published by the Author, Grubbs, Ark.

The author presents in this book a most thorough treatise on malaria. The wide prevalence of this disease makes such a book a useful addition to medical literature. The work is a result of the author's personal experience and a study of the literature on the subject.

Fallacies and unimportant material have been rejected and only reliable, scientific and proven facts given, thus making the book a concise, practical treatise for the guidance of the practitioner.

The author first discusses the etiology, prophylaxis and hygiene of the disease, then takes up treatment. Treatment is covered very thoroughly giving the views of many authorities. Dr. Finley Ellingwood contributes a chapter on eclectic treatment of malaria.

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THE PREVENTION OF SEXUAL DISEASES By Victor G. Vecki, M. D., Ex-President San Francisco German Medical

Society,etc. With an Introduction by Wm. J. Robinson,M. D. Price, Cloth, $1.50. The Critic and Guide Company, 12 Mt. Morr's Park, West. New York.

This book is evidence of the awakening interest all over this country in the prevention of venereal diseases. The work discusses the great danger of infection by venereal diseases and presents various methods of prophylaxis. Such books as this are sure to do good and the wider the circulation of this volume the better it will be for everyone. This book can be read with profit by both physician and layman. The subject is discussed very freely and frankly, which is the only way to present the matter understandingly. The public must be educated to the importance of this subject and taught how to prevent the spread of venereal diseases. This book will be a valuable agent in carrying on the great work.

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McClure's Magazine for March contains: "From a Sky Scraper," a poem, by Allan Updegraff; "A Subway Rush-Hour Crowd," drawing by Anton Fischer; "McAdoo and the Subway," by Burton J. Hendrick; "The Honeymoon," a play, illustrations, by Arnold Bennett; "There's Rosemary," a poem, by Olive Tilford Dargan; "In the Funerals," a story, illustrations by Helen Green; "Will Congress Put Our Nation on the Sea?" "Some Letters and Their Writers," by Ellen Terry; "Great Cases of Detective Burns," by Dana Gatlin; "The Test," a story, illustrations, by Francis A. Ludwig; "The Masters of Capital in America," by John Moody and George Kibbe Turner; "The Tooth of Antar," a story, by Lucille Baldwin Van Slyke; "Interior," a poem by Padriac Colum; "The Case of Richard Meynell," a novel, by Mrs Humphrey Ward; "Fruition," a poem by Catharine Tynan; "A Lost Job," a story, by Arthur E. McFarlane; "In Justice to American Users of Serum."

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RUNDSCHAU.

(Continued from Page 85)

the spinal column must, therefore, be painful, even in the very beginning of the disease. To elicit this test the patient is placed upon his back, made to bend his body so that it is supported only by the occiput and the soles of the feet, in other words he takes up the postion of opisthotonus. In the presence of Pott's disease the patients either experience a sharp pain in the affected region on assuming this posture, or they are unable to assume the attitude at all, on account of the unbearable suffering it involves. Athanasescu (Deutsch Med. Wochensch. 110, No. 33) was able by this method to diagnose two cases of Pott's disease at so early a stage that neither pain nor pressure, spinal rigidity, nor kyphosis could be made out.

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MARCH WINDS

Drawn by Grace M. Norris, M. D.

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THE REPRODUCTION OF BACTERIA

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

Although an attempt had been made to connect bacteria with disease as early as 1762 by Plenciz, of Vienna, and more or less was written on the subject by others after him, notably Henle, Spallanzani, Pasteur, and Tyndall, they were not caught "with the goods" until 1849. The first pathogenic organism was discovered in that year by Pollender. It was the anthrax bacillus, but its etiology was not fully demonstrated until Davaine, in 1863, by animal inoculations, conclusively proved it to be the exciting cause of that disease.

Other discoveries and investigations followed rapidly, but the first innovation of far-reaching value in the study of bacteria was the introduction of the aniline dyes as staining agents by Weigert and Ehrlich in 1877. This made a more accurate study of bacterial morphology possible, but little as yet was known of their biology or habits. It was Koch, then, who by his introduction of solid media and the plate method, in 1881, made it possible not only to obtain the different species in pure culture, but by so doing to study their habits with a scientific accuracy impossible before that time. Many important researches that have since been made would have been impossible without Koch's plates or their modifications.

The biology of bacteria may be considered under two general headings: the active biology, embracing the functions of locomotion or motility, nutrition and reproduction, and the passive biology, or the influence of surrounding forces on the bacterial cell, under which are included nutritive media, heat, light, disinfectants, etc. It is our purpose in this article to take up the subject of reproduction, which is probably of more absorbing interest, leaving the others to be considered later.

In considering the reproduction of bacteria, they fall naturally into two great classes—the lower bacteria or haplobacteria and the higher or trichobacteria; whose methods of reproduction differ considerably, as we shall see.

Reproduction among the lower or true bacteria, we are assured by most authorities, is "entirely asexual." There are two methods, which are known respectively as fission and spore-formation. The process of fission is so universally characteristic of the class that the name schizomycetes or fission-fungi has long been used as synonymous with bacteria. The cell, having attained its full growth, gradually becomes constricted in the middle and finally divides into two cells. These in turn grow to adult size and again divide and so on ad infinitum. The process is practically identical with that known as direct division in the animal or higher plant cell.

The rate of multiplication varies from twenty minutes to an hour, depending upon the species, environment, etc. One germ dividing every hour for 24 hours would produce 16,777,216 individuals; these would increase to 281,474,710,658 in 48 hours, and in six days the mass produced would equal the size of the earth, if each bacterium weighed one ten-

billionth of a gramme. As a matter of fact, however, uninterrupted division for twenty-four hours is an impossibility, except in rare cases. The food supply will become so reduced, and poisonous excretory products so multipled, that reproduction will soon cease completely, or at least become much inhibited. It is interesting to note, however, what an enormous force we have to deal with here. The figures above are quoted from Frost and McCampbell.

In those bacteria in whom nuclear substance has been demonstrated, in the form of metachromatic granules, division seems to take place first in these bodies. In the diphtheria bacillus, according to Park, the granules first divide, forming two lines, between which the rod divides with a snap, the two cells remaining attached for some time at the point of fission, giving rise to the V-shaped organisms.

Under certain conditions of cultivation, branched forms have been demonstrated in diphtheria cultures. These individuals were very large and showed large metachromatic granules. These granules were seen by Park to fuse just before fission occurred, and the branching forms which showed this phenomenon were the only ones in which growth and division could be demonstrated in this particular culture. This would certainly seem to be a primitive sexual process—a sort of autogamy. Schaudinn has described a similar phenomenon in the Bacillus Buetschlii, in which this fusion of chromatin granules was connected with spore formation in some way. He likewise considers this a case of primitive conjugation or autogamy. This process is so interesting that a more detailed description may not be out of order.

When this bacillus is about to undergo division, in fact, already shows a line of demarcation in the middle, the chromatin granules which are scattered over its entre body gradually collect at the end of the cell and the end spores are formed directly from the chromatin end masses, after whch division proceeds to its termination.

Spore formation differs from fission, inasmuch as it is not a method of multiplication. That only one spore can be produced from one cell is probably well proven; and that this spore will when germinating produce only one bacterium. It is a process by which they are enabled to assume a form in which they can resist deleterious influences better than when in the vegetative state. The spores are highly refractile, glistening bodies which are composed of concentrated protoplasm surrounded by an extremely dense envelope. They stain with great difficulty and are very resistant to heat, drying and antiseptics, all of this being due to the dense, impenetrable envelope.

The process of sporulation is similar in most bacteria, and a description of it in the anthrax bacillus will serve as an illustration. The cell, whose protoplasm is ordinarily homogeneous, becomes first turbid, then finely granular. The numerous fine granules are then replaced by a small number of coarser granules, the sporogenous granules, which are probably nuclear in character, and correspond to the metachromatic granules in other species, as diphtheria. These coarse granules coalesce and finally amalgamate into the spherical, refractile spore. These are soon set free by the breaking up of the cell-membranes, and remain in this free state until germination takes place.

Germination takes place as follows: the spore loses its shining appearance and becomes pale and swollen; this being due to absorption of water. A protuberance then appears at either side or one end of the spore. The former is called equatorial and the latter polar germination. This protuberance eventually forms a rod, which is formed of the inner layer of the spore envelope and contains its protoplasm. The outer layer is cast off. The rod gradually assumes the character of the adult vegetative organism.

The true character of the spore is still in doubt. Some have advanced the view

that the spore is the highest stage of the bacterial life history, and that the cell has to pass through this stage in order to maintain a vigorous species. As not all cells in a culture will form spores, this may be a case of "survival of the fittest," the protoplasm being concentrated and preserved in this manner. Others maintain that spores are never formed ercept in unfavorable surroundings, and that the withdrawal of the cell substance into the spore may be likened to the hibernation of higher animals—a preservation of energy for future good times.

The higher bacteria or trichobacteria in their reproduction present analogies to the molds on the one hand and the protozoa on the other. Most of these species are filamentous, often with sheaths, the filaments consisting of separate individuals connected terminally. One end of this filament is usually attached to some object. When reproducing, the cells on the free end divide and form reproductive bodies known as gonidia. These are sometimes referred to as spores but bear no resemblance to the spores of the lower bacteria. They are cast off, and in some cases grow flagella or organs of locomotion, remain motile for a period, and finally attach themselves to some object and proceed to form a new filament.

This to a certain extent resembles the process of reproduction in some protozoa, notably the formation of sporozoites in the sexual cycle of the plasmodium malariae, which is however preceded by a well-marked union of the male and female elements, the entrance of the microgamete into the macrogamete resembling the entrance of the spermatozoon into the ovum. No such phenomenon has as yet been observed in bacteria, either high or low, and the question of sexual or asexual reproduction must await further researches.

THE OCULIST OR OPTOMETRIST

WHICH IS PREFERABLE TO THE PRACTITIONER?

By A. S. CORE, M. D., Chicago, Illinois

In order to prescribe glasses intelligently and correctly it is necessary to make a correct diagnosis of the underlying causes of the eye trouble and if it is necessary to improve the vision, correct a reflex, or both by the use of glasses or through some systemic treatment. In these requirements most of these traveling optometry "professors" (?) that have obtained the title in a six weeks correspondence course by mail are not qualified. They frequently prescribe glasses that do not relieve the symptoms and often when a glass is not required, and they fail to make the proper diagnosis of general disease when it is the cause of diminishing vision. In these conditions they injure the eye, or permit the patient to go without the proper treatment for a systemic disease that may prove fatal by neglected treatment and then collect more money for this imperfect service than the educated oculist would for good service Therefore these traveling optometry professional spectacle peddlers are unqualified and dangerous in all abnormal conditions of the eye and should not be permitted to prescribe glasses.

The spectacle peddler and department stores make little or no effort to correct astigmatism by prescribing cylindrical lenses. They do all they can to sell only spherical lenses, because they cost less. The majority of eyes that need a spherical lens for the correction of vision also may need a cylindrical lens to correct an astigmatic error in one or both eyes more than it needs the spherical, and it is very seldom that spherical lenses will give per-

fect vision and relieve the eye strain without combining them with a cylinder lens.

The cheap spectacles sold in the department stores and mail order houses by a lady "professor" (?) with a test card of different sized type to be read by a customer at a stated distance from the eye with such lenses as they may choose as the necessary glass, is certainly very interesting, as one eye may require a lens quite different from its mate. Eyes are so often mismated, as well as these cheap lenses, which are so badly ground that they may represent one thing in one spot and something quite different in another part of the same lens; they are imperfect, that is why they are cheap and injurious. All of these cheap lenses are spheres and for hyperopic eyes. For astigmatic and myopic conditions of the eye nothing is attempted in the way of a correction, but it is left to the customer to make the selection of such lenses as fancy dictates. A large number of people do fit themselves with these glasses and when headaches continue and vision grows more dim, they naturally conclude that there is no benefit to be gained by the use of glasses. As a rule these cheap lenses cause more eye strain, headaches and irritation than the lack of lenses, and they aggravate a simple error in a very important organ into a positive injury that may be grave. The results of such lenses are not only absurd but injurious.

There are many people who suffer more or less with inflamed lids, a blurring of sight, eyeache and headache, dizziness and sometimes nausea after continued close work, and especially is this true if the work has to do with parallel and horizontal lines. When such condition exists there is an astigmatic condition present that spherical lenses will not correct and their application usually renders the condition worse. In these conditions it is the custom by those who fully recognize all the abnormalities in the eye to make the full correction for the cylinder lens, as it is of more importance than the spherical lens. If there is only a slight degree of astigmatism present, weak spheres of equal strength for each eye can be worn for close work, if all the symptoms are thus relieved. It is more satisfactory to use the glasses only until consequent diminished distant vision has disappeared, then the glasses laid aside, except for close work.

The traveling spectacle professor and many opticians will not sell bifocal glasses as they desire to sell two pairs of mountings instead of one. Persons that have passed the middle period of life and find it necessary to wear glasses for both the near and distant vision find themselves inconvenienced with two pair of glasses that the superior wisdom of these "professors" have overburdened them with through selfishness. Bifocal glasses are more convenient by not having to stop to remove the glass to see at a distance. The object of a bifocal glass is to have both the near and distant points always before the eyes and the person enabled to distinguish objects at any point without inconvenience.

The best substitute for two pairs of spectacles, one for the near and one for the distant point of vision, is the bifocal lenses, and these can be used in a spectacle or a neat-fitting nose mounting; and if cheapness is desired the cement segment is as good as the more expensive Kryptok lens. Traveling spectacle peddlers and many opticians do not have the stock or the facilities to adjust bifocal glasses, and the oculist who adjusts a bifocal combination must exercise much care and be certain that the lenses do not decenter in either the near or distant fields. When all of these considerations have been given close attention, the adjusting of bifocal lenses to eyes that require glasses for both the near and distant vision do in many ways approximate the ideal for service

without change of glasses and the trouble of seeing and caring for two pairs of spectatcles and making the necessary changes. Bifocal lenses are easily and cheaply replaced when broken. They may be used in either a spectacle or a nose mounting with any degree of durability and elegance that a particular patient may desire and at a price that is not in excess of a single pair. It all depends upon the mounting. Spectacle peddlers and department stores will insist that the bifocal combinations confuse the vision by the slight blur that occurs in passing from the upper to the lower lens, and for this reason they are not practical, the principal reason is they prefer to sell two pairs of spectacles instead of one and avoid the trouble of adjusting the bifocal lenses.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 72 March Recorder)

For nearly one hundred years after the founding of the Colonies, no medical school existed in this county; medical pupilage during this period, offered the only means of acquiring such education. After a time of private study or apprenticeship, a certificate was issued which entitled its owner to practice medicine in all its branches, throughout the Colonies. If any aspired to a degree, they were compelled to attend one of the European universities to attain it. At a period antedating the Revolutionary War but a few years, two schools were established,—one in Philadelphia, which has been perpetuated in the University of Pennsylvania; and one in New York, as a department of "Kings," now Columbia College. The instruction in these schools was almost wholly restricted to the elements of medical science. The illuminating clinic had no place in the curriculum of that day. When the great advancement in medical science since that era is remembered, how like travesty those ancient lectures would seem, could they be produced in one of our modern medical colleges. But these mother institutions had an aspect which makes them of blessed memory. They had a high standard of requirements,—higher, perhaps, than any medical institution has maintained since that time.

In King's College it was required, first, that there should be a preliminary examination in Latin, and some branches of natural philosophy. This was required of all who had not taken a degree in arts; second, after three years pupilage, and one complete course of lectures, the bachelors degree was conferred upon worthy candidates; third, after another year, and two full courses of lectures, students who were twenty-two years of age, were admitted to an examination for the doctorate, and were required to print and publicly defend a thesis upon some medical subject. These schools ceased to exist during the Revolutionary struggle but were reorganized soon afterward, together with Harvard, Queens, and Dartmouth. They were rigorous in their requirements and so carefully did they guard the honor of the profession in exercising their privilege of conferring degrees, that at the close of the eighteenth century their graduates numbered two hundred and fifty. During the first quarter of the nineteenth century, the medical schools increased to sixteen distributed in twelve states.

From this time medical schools assumed a distinctive American type. Separated from the influence of association with literary college, and obtaining with little difficulty the legal right of existence, schools of inferior grade sprung up all over the country. Men with

neither natural nor acquired fitness occupied chairs in many of these colleges, and among the abuses of privileges, were the almost unlimited granting of the honorary degree, and the granting of degrees upon the certificates of men of whom nothing was known by the faculties, setting forth the fact that candidate had engaged in the practice a certain number of years, in lieu of one course of lectures, and the issuance of a diploma, recognizing only the formal appearance of the applicant for matriculation, and the payment of a fee.

The first medical school of a high class, west of the Alleghanies, was the Transylvania University of Lexington, Ky. My father graduated from it in 1825. It had a faculty not excelled, if equaled, in the United States; such great men as Dudley, Cook, McDowell, Drake, Yondell and Bartlett.

The American Association soon after its organization, undertook to effect a reform in medical teaching, and to establish a higher standard of attainments, as prerequisite for admission to the doctorate. A generally recognized need for such reform was, indeed, the incentive for the organization of this body, but despite the efforts, matters grew worse, until a comparatively recent period. Thus we see, that whatever of error or inadequacy there may be in medical teaching today, and whatever there may be of incompetency in the profession, they are but the fruitage of years, and cannot be remedied in a day.

Upon the basis of achievement, medicine need not hide its face, when comparison is made with the other learned professions. The science of medicine, and the art of healing, are no longer viewed as traditional vagaries. It is eminently respectable and greatly honored in this age. Ignorance and incompetency make no such conquests. Physicians as a rule, have a close fellowship with the learned in all departments, and enjoy in a marked degree, the favor of society.

When I began the study of medicine, I thought a man who didn't get his diploma of the Jefferson Medical College, Philadelphia, was no "great shakes." However, I have known graduates from that college to make a failure in the practice, and I soon came to the conclusion that it was not the Alma Mater's fault, but that the fault was with the man. Some of the most successful medical men I have known, graduated from the Ohio Medical College. A young man may graduate from the best school in the land but if he is not in love with his profession, and has the "get up, and get" in him, he will not succeed.

Speaking along this line reminds me of an anecdote that may illustrate my point. When Corporal Tanner went to Secretary Noble's office, in the Interior Department, to be sworn in as Commissioner of Pensions, there were gathered there several eminent public men, and among these the late Senator Vorhees. The Corporal came and said: "I have come to qualify as Commissioner of Pensions."

Voorhees exclaimed: "You may take the oath of office, Tanner,—but all hell can't qualify you."

Medical schools cannot, by the wisest management of curricula, by graded courses, and lengthened terms, nor by the most ample equipment of chairs or laboratory, bridge the chasm of original illiteracy; nor can they be expected, reasonably, to turn away all the ill-educated or deny them graduation, when this class is so largely sent from our offices. The education which will give the inclination and ability to use the mental powers in solving the problems of disease, must, in a large measure, be acquired before the course of medical study is undertaken. If a young man go from the grammar grade, or from the farm, equipped by a few winters study in the district school, unread even in the history of his own land, with little or no training in the English tongue and

essay the study of medicine, its mazes will confound him, and many of its essential truths will be a sealed book, all his days. It is not possible for an immature mind to take cognizance of scientific facts.

I don't want to be guilty of repetition, and tire Recorder readers, but I feel constrained to reproduce here, a correct history of the beginnings of medical education in this country. It is taken from a publication sent out by the New York Pharmacal Association, and it is too good to lose.

It says: "The properly equipped physician of today, with his diploma from a chartered medical institution of learning, may well be interested in the early history of medical education in America. He cannot but feel a thrill of satisfaction and pride when he realizes how much has been accomplished in less than 150 years, to place medicine above all other professions as regards the education and practical training of its disciples. From an humble beginning, about the middle of the 18th century, when there were no laws regulating the practice, no colleges to teach it, and anyone could practice any sort of Physic,—steady progress has been made toward the ideal."

Appreciation of what has been done in the past, cannot but be an incentive to accomplish more in the future. And it is significant that the three medical schools which were the first to be established in the Colonies are today, not only in existence, but stand for all that is best and representative of their kind, not only in America, but in the world. Their development has been steady, and they stand today, fitting monuments to the wisdom, judgment, and credit of their founders.

The beginning of medical education in America is found not within institutions of learning, but in personal association of the student with his preceptor, a practicing physician. This relation was a revival in the New World of the apprentice system which prevailed in Great Britain. He read text books, compounded medicines, kept accounts, and picking up whatever more or less useful information, and desultory instruction he could. He was taken sometimes to witness operations, or to assist in them; saw cases whenever it was practicable; and under the most favorable circumstances, received in time, a certificate of proficiency from his preceptor,—certifying to his ability to practice "Physick."

Those students who had ambition, and the means to gratify it, went abroad to the famous schools at Edinburgh, Aberdeen, Glasgow, London, Leyden, Paris, or Padua, and obtained the knowledge and diploma denied to them in the Colonies. In America desultory attempts were made to give lectures and special instruction to small classes. John Eliot mentioned such attempts by Mr. Giles Firman, in 1647. Anatomy was the favorite study. The body of a criminal who had been executed was dissected in 1750 by Drs. Bard and Middleton in New York City, "For the instruction of the young men then engaged in the study of medicine."

Dr. Ezekiel Hersey, of Hengham, Mass., left a bequest of £1,000 in 1770, to be used to "Establish a professorship of Anatomy, and for that use only."

In Boston, a successful series of lectures on anatomy, was given during the years 1780 and 1781, by Dr. John Warren, an active practicing physician who had been a surgeon in the Continental Army. In Philadelphia, Drs. Ralph Ashton, Christopher Witt, John Redman, and Phineas Bond, were well known teachers and gave instructions to young men. This leaven, working in the then geographical centers of the country,—Philadelphia, New York, and Boston, moulded public opinion and goaded civic pride into organized effort towards establishing permanent medical schools. King's College gave a course of lectures in anatomy in 1763, and its Board voted to establish a regular medical school, Aug. 14th, 1767. The "College of Phila-

delphia'' organized a medical faculty on Sept., 1765. Harvard took similar action in 1782. King's College afterward Columbia College, and latter Columbia University, was created by letters patent issued by George II., King of England, Oct. 31, 1754. In the year 1763, lectures were given upon anatomy, in the College by Dr. Samuel Clossy, a graduate of Trinity College, Dublin.

Aug. 14, 1767, it was voted to establish a medical school which was opened in November of that year, with the following faculty: Samuel Clossy, Professor of Anatomy; Dr. Peter Middleton, Physiology and Pathology; Dr. John Jones, Surgery; Dr. James Smith, Chemistry and Materia Medica; Dr. Samuel Bard, Theory and Practice; Dr. J. B. Tonnant, Midwifery.

''King's College'' thus antedated all other medical colleges in America, in conferring a degree of M. D.

By the year 1774, nine men had received the B. M. degree.

In 1775, Dr. John Jones published the first book on a medical subject, to appear in the New World. Its title was: ''Plain, Precise, Practical Remarks on the Treatment of Wounds and Fractures.''

In 1884 an act was passed making Columbia Collge of New York City, the successor of King's College, and instruction was resumed in the academic department. During the war, it had been closed. In 1792, a complete reorganization was effected and continued till 1814, when the faculty was merged into the ''College of Physicians and Surgeons'' a rival institution, which had been chartered in 1807. The faculty had such men as Edward Miller, Daniel Hosack, Samuel L. Mitchell, and Archibald Bruce. In 1860, the ''College of Physicians and Surgeons'' became the Medical Department of Columbia College and in 1891 was made a definite part of the University.

The charter for the establishment of the ''New York Hospital'' was granted in 1771. The first medical journal in the United States was the ''Medical Repository,'' founded by Drs. Smith, Miller, and Romayne, in New York City, in 1797. Medical progress was steady and rapid. A medical library was established; hospitals and public institutions founded, and a medical society formed. A more or less war was made on quacks, and irregular practitioners. New York City began to be regarded as the medical center.

The College of Philadelphia was founded in 1749. In 1750 Dr. Thomas Cadwatadan gave a series of lectures and demonstrations to students of medicine, and to physicians. In May, 1765, a letter addressed to the Trustees of the College from Thomas Penn, endorsing the plan proposed by Dr. John Morgan, to establish a medical department, was presented by the latter. The plan was approved, and on Sept. 26, 1765, the faculty was composed of the following:

Wm. Shipman, M. D., Anatomy and Surgery; John Morgan, M. D., Medicine; Adam Kuhn, Materia Medica and Botany; Benjamin Rush, Chemistry.

The charter of the college was revoked by act of the legislature November, 1779, and given to the University of the State of Pennsylvania. In 1783 the charter of the college was restored. In 1791 the two rival schools united on Sept. 30, under the title of the ''University of Pennsylvania.'' The charter for the Pennsylvania Hospital was granted in 1750-1, and the first patient admitted was on February 10, 1752.

(To be continued.)

REMOVAL OF HAIR BY EPILATION

By WILLIAM R. D. BLACKWOOD, M. D., Philadelphia, Pa.

Through a reference to epilation by pastes of varying nature in my papers on electro-therapeutics during the year 1910, I have received several letters asking about that procedure which I answered individually but as there appears to be quite an ignorance as to the matter among the general practitioners, I send this paper to The Recorder in the hope that it may throw some light on this of considerable importance to many patients, especially the women who have beards that they don't want, or too much hair anywhere which they wish to be rid of without too much trouble.

Three methods apply to removal of hair—the oldest being shaving with soap and a razor, the next that of electric needle, the other epilation by caustics or some salt which softens or burns the hairs so as to render them easily scraped off.

In using pastes certain cares must be taken—first, don't leave the paste on too long, it will burn or scar if this is not looked to; second, when scraping the paste off don't bear on too hard, the underlying skin is just then rather soft and tender, it might be peeled off with the paste; third, befoe applying wash the skin with warm or hot water to soften it and the hairs alike, the hairs might come out by the roots if the skin is sufficiently softened, I have seen this happen many times; fourth, after scraping the mass away, wash the part carefully with warm or hot water as in the beginning, and then apply some bland oil or cream to stop burning, which somtimes is quite unpleasant, I mean such as occurs after close shaving, not actual cauterization. All pastes unless otherwise alluded to are mixed with water just prior to application to a consistency of rather stiff cream. Spread evenly and thinly over the whole surface to be treated, and after leaving it on for five to ten minutes according to the nature of the cuticle, scrape it off with a dull knife or some such instrument. Now for a few pastes.

1.—Sulphurated parytes, gr. 120; zinc oxide, grs. 60; starch, grs. 60.

2.—Sodium sulphhydrate, grs. 100; recently slaked lime, grs. 80; starch, grs. 20.

3.—Sodium sulphide, grs. 100; precipitated chalk, grs. 300.

4.—Barium sulphide, grs. 80; precipitated chalk, grs. 400.

5.—Orpiment, grs. 60; slaked lime, grs. 200; starch, grs. 180.

6.—Quicklime, grs. 120; sodium sulphide, grs. 240; starch and orris root, of each grs. 40.

7.—Calcium sulphide, grs. 120; glycerine, fl. dr. 2; orris root, grs. 120; oil of lavender, gtts. 5; oil of ylang-ylang, gtts. 2; camphor water, fl. dr. 4; mix well.

8.—Strontium sulphide, grs. 300; zinc oxide and starch, of each grs. 100; menthol, grs. 5.

9.—Charcoal, grs. 8; quicklime, grs. 30; sodium carbonate, grs. 60; glycerine, fl. dr. 1; lard, av. oz. 1; mix, and this, needs no water even when applying. It may stay on ten or twelve days, when the skin getting red—scrape off and the hairs will come along with the paste.

10.—Iodized collodion made by adding powdered iodine, grs. 160 to 6 fl. ozs. of flexible collodies, can be used. Apply once daily for four or five days, and when the skin peels off the hairs come with it. Sometimes they don't grow again, they come out by the roots.

Razor shaving makes the skin black, strengthens the hairs, and is not applicable to women's faces. Electric epilation is slow and troublesome, whilst pastes are not so, but use care in their employment. All the articles named can be had from good druggists. It is said that when barium, strontium, or calcium sulphides are used that if mixed with indifferent

materials, such as starch, or chalk, and then made into a paste with water, and boiled thoroughly the mixture being stirred whilst boiling, the paste will not burn so much as that made by the cold process. I don't know about this, as I have never tried it, but it may be an improvement.

MARRIAGE AND CELIBACY

By J. L. WOLFE, M. D., Cedar Falls, Iowa

The divine ordinance, marriage, is the holiest and most exalted of all institutions. Page after page could be written if time permitted and necessity demanded, in borrowing from the books of the Bible and the existing canons of heathen races to prove that the purposes and rites of matrimony which have not only been encouraged, but imposed by the Deity, have received the active endorsement of all civilized nations, and the approval even of the pagan. The most highly cultured and progressive people of the world, are those under whose government marriage is sanctioned by religion and imposed by law for the purpose of procreating children, and the legitimate indulgence of the sexual desire. Good government is representative of good families; and we hold in supreme contempt the social iconoclast who proclaims the futility of the marriage bond and the institution of matrimony. The obligations of marriage are manifest, mutual and peremptory. Though a civil contract it is a divine ordinance wisely instituted for the enjoyment of the highest human individual happiness, and as such is the keynote in the prosperity of nations. It is alike the keystone in the national structure of moral obligation, which creates wholesome government; and the one who attempts to break down the barriers which preserves the purity of the domestic hearth commits as great a crime against society as he who would shatter the institutions of the state. If matrimony has incomparable pleasure it also has its obligations and the married of both sexes should so conduct themselves that they need fear nothing from the searchlight of publicity which should only throw into greater prominence their degree of purity and honor.

As marriage was especially designed for the legitimate procreation of children and the consumation of the obligations of the sexes, we believe that all men and women should marry when they arrive at the age of legal maturity. The human race is so constituted that the longer marriage is delayed the more universal does prostitution become. This is an evil to be eradicated and not perpetuated and every man who honors woman should enter a crusade against the empty fictions of an ill-advised teaching, which by the advocacy of delayed marriages encourages the so-called social evil, and condemns a contingent of unhappy creatures to a shameful and most pitiful calling. Celibacy is neither natural nor advisable. Bodily needs demand satisfaction, and celibacy is contrary both to natural law and biblical teaching; and men and women realize that if they desire to be in complete harmony with nature, they must necessarily be husbands and wives and fathers and mothers.

If further proof were wanting that wedded life is the most natural condition, statistics which represent facts and not theories, show that the average life of the unmarried is shorter than the average life of the married. The unmarried are less vigorous and they age more rapidly.

Celibacy from a physical standpoint has much to answer for. Undue continuance sooner or later provokes disease and spermatorrhea in the male, and hysteria in the female are visible results. The fact that late marriages can never

be generally practiced, need not be seriously contemplated. We advocate early marriages as the offspring of early marriages are more robust and vigorous than children born to parents of middle age. Woman was constituted to complete the domestic happiness of man and the relation which exercises the greatest ascendancy over mankind, is undoubtedly the domestic influence. The attraction of the sexes toward each other, is of such a nature that if not legitimately met by marriage, it is not slow to leave an undesirable legacy evinced by a lowering of the higher qualities.

On the other hand the man who is happily married discovers that there is no state of life comparable to it; it promotes peace of mind and supreme contentment, and encourages a man to successfully combat with the trials of the present and stimulates him to nobler achievements.

One of the most important of all unwritten laws is that no man should marry until he has the warranty of medical authority that he is physically qualified. There are few men who at one time or another have not been guilty of unnatural abuse of physical laws or sexual excess, but have injured their generative organs and any disease of the latter even of the mildest and most partial character, should form an inseparable bar to marriage.

THE ALKALOIDS FOR THE GENERAL PRACTITIONER

By W. L. MOORE, M. D., St. Louis, Mo.

Whether the word "alkaloid" appears on the program or not, there are few gatherings of medical men in which the discussions do not turn to this alkaloidal question. In its consideration I beg leave to begin by saying that I shall look on it solely from the personal standpoint. I care very little for the interests of the city surgeon, specialist or medical politician, and not at all for their personal quarrels. The man whose interests demand my exclusive care is myself: and hence I shall speak only of what the alkaloids mean to me; and in so far as I represent a class of my fellows, what they mean to others in my class.

There are certain advantages that come from the use of alkaloidal granules that commend them to every doctor who carries or dispenses his medicines in whole or in part. The bulk and weight of these remedies is very much less than with the older forms. A case containing 120 vials, each of which may have two different drugs, one in granule the other in tablet, gives me 240 remedies from which to choose, with about 15,000 doses, weighing in all about 3 pounds, and of a size that can be slipped in a large overcoat pocket.

There is not a liquid to be spilled and ruin the case and clothes. The drugs in these milk sugar granules do not lose strength by decay or gain by evaporation; they are easy to dispense, needing no scales or measures; they are easy to take and the children like them; their effects are quickly in evidence because they are quickly dissolved and absorbed, and get at their work without waiting.

Your case is always ready so that you can grab it, jump into your buggy and light out to answer a hurry call, secure that among your 240 remedies there will surely be thoes you will need.

These are certainly practical advantages that justify a doctor in utilizing these drugs, and for one I scarcely feel I would be justified in leaving them to the other doctor. I want all the help I can get to hold my own ground and give prompt and effective help to my suffering fellow men. While I do not believe in deserting old and approved remedies to run after every new fad that arrives, I do not propose to leave really good and

improved methods to my competitors and be classed as a mossback.

But great as are the advantages above enumerated, they are yet subsidiary to the greater, the all important one, that when we use the alkaloids we know what we are doing. Look back at your text-books on therapeutics, and you will see that the men who made these experiments on which our knowledge of drugs is founded, used the alkaloids. Why did they not use the crude drugs? Because these were variable as to quality and action, and no definite results could be secured from any but definite agents. So we find that Wood, Brunton, and the other great investigators worked with morphine, not opium, atropine not belladona, strychnine not nux vomica, quinine, not cinchona. But I cannot see any good reason why we should not have the same certainty in our treatment as these men had in their experiments. I want to know exactly what my medicine is going to do, not what it is likely to do.

Uncertainty is the bane of our work. If we don't know exactly what is the matter, and are uncertain just what our drugs will do, and how much of it they will do, we must necessarily go slow. We must try our drug continuously, watch the effects and stop it the moment we see things going wrong. This may do in some cases, but in acute diseases we lose the most precious opportunity, that of striking in hard enough to break up the attack before it has become seated in the tissues, and inflicted material damage that nature repairs slowly if at all.

Study your cases, at the bedside; make your diagnosis as carefully and as completely as your facilities allow, and in the meantime give exactly the drugs that are needed to restore the functions to their healthy operation. You all know how carefully you try out a new tincture or fluid extract; and when you have learned just what it will do you feel secure—until that bottle is done and you get a new lot. Then the trying is done over.

Some men will say that we should not use these active-principle drugs because the leaders do not recommend them. We are always ready to thankfully learn all these gentlemen can teach us; but we also have some knowledge of our own, some slight skill in clinical observation, and we have never yet met the doctor who knew all there was to be known. Others will object that somebody makes money out of the alkaloids. If that holds good we will have to quit all drugs and go over to Christian Science. It is said that the men who supply the alkaloids make extravagant claims as to their powers. Nobody is as well able to judge of this as we who put them to the test; and when we find the claims unfounded we drop out that drug. We are the judges, and if we are worthy of our profession there is very little danger of our being fooled. The game is in our own hands.

In conclusion I will say that whenever a new idea is put out by the alkaloidists, a new remedy offered or a new use proposed for an old one, I give them a fair trial. If they prove better than the old I keep using the new till I get something still better. But taken as a whole the alkaloidal idea is worth too much to be neglected.

ANODYNE FOR SCIATICA

℞ Oil wintergreen .....ʒj
Chloroform .....ʒiv
Tinct. aconite .....ʒiv
Tinct. capsicum .....ʒiv
Menthol .....gr. xxx
Alcohol f. s ad. .....℥iv

Sig—Apply freely over seat of pain.

WINTER COUGH.

Equal parts of apomorphine and heroin in 1-6 gr. doses repeated as needed is a valuable remedy for winter cough or other coughs needing an expectorant.

J. A. Burnett, M. D.

MORE HINTS FOR THE NOVICE.

By W. Stuart Leech, M. D., Portland Oregon.

One of the greatest things to know in the practice of our profession is not how to get new patients but how to retain them after they are once gotten. Like friends, it is not the number we make but the old we are able to hold. There are various ways of building up a practice. This remains a good deal to the individual, each man being a law unto himself. The surgeon can court the profession by his unerring judgment and successful operations, but the practitioner caters principally to the laity. 'Tis to them he looks for sustenance, and, if he wins the friendship of the world, the ethical brother will probably be with him.

Be friendly with everybody, intimate with no one. To make friends one must show himself friendly. These are substance of old saws, and are applicable in our case. First of all, keep away from saloons and billiard halls, don't be a loafer, don't be a promoter of dances, excursions and balls, don't brag about the number of your surgical or confinement cases, don't speak evil of your competitor or slightly of the old physician; remember you are growing old. An acquaintance who visited me frequently could never remain more than five minutes, as an explanation of his haste he was expecting two or three cases of labor and would have to hurry to his office. If he called on me every day that would be his excuse, while as a matter of fact, I knew he only had fifteen or twenty cases during the whole year. If you are visiting socially, don't hurry away to your office as though humanity couldn't breathe without your assistance. Go away from home occasionally and give your patients an opportunity to recover. Never neglect a serious patient; having taken charge you must see him through. Study human nature continually. "Know thyself." Keep your ears open, and be slow about using your tongue when questioned at the bedside; words unfitly spoken like sand thrown against the wind will return again. Condescend to the poorest; be humane to all. The great middle class and the honest poor are better pay than the rich; endeavor to always render them value received; be long suffering, have a radiant face, smile on your enemy, in truth, be a man.

When a patient enters your office, watch his gait, form, countenance, be on the alert for the unusual, in this you may be able to detect his ailment. Greet him pleasantly, as soon as he is seated, request his name; if perchance it is a woman or miss and she seems timid do all you can to make her feel at ease, gain her confidence. Let her know by your demeanor that you are kind, gentle, sympathetic, serious and are to be trusted. Let your examination be systematic, thorough and to the point. If you see at a glance that a fifty cent prescription will remedy the indigestion, constipation, bronchitis, or whatever the trouble may be, don't desist with your examination, think not of the pencil and blanks but make that examination thorough, and as a result the patient will be satisfied and will more readily pay one or two dollars for the perfect examination than fifty cents for the superficial. If your patient's circumstances permit you to charge for only one prescription when it is necessary to give two write both on one blank and charge accordingly, if otherwise write on two, if necessary, three, and the patient will feel more like he was getting value received. Write your prescriptions in either all Latin or all English, and let your charges be uniform. Have no interruptions when you are writing, always give the patient some vague idea of what to expect from the medicine. Be explicit in your directions, but do not deliver a medical lecture. After you have given the necessary directions take your time in

folding and passing over the prescription, but if patient has purse in hand or is reaching in pocket for it you need not delay. If you deem it necessary to have patient return at some future time, set the day for him; it is bad policy to leave it to his judgment. You must impress him that you feel an interest in his case, and when this impression takes hold and as long as it continues he is your patient and you are his physician. Collect your bills without wounding anyone's feelings. Soon as your case is dismissed, be prompt in sending in your account. Do not make out your bill on note heads or grocery blanks. If no attention is paid to bill when sent, repeat the dun every thirty days, or what is better, collect in person. If patient refuses to pay and threatens to sue you for malpractice, be quick, sue him and get judgment. Soon as judgment is rendered in your favor the court will not entertain a suit for malpractice. It is too late for him to sue you after you have gotten judgment. In this case the early bird undoubtedly catches the worm.

Have your office clean, neat, comfortable, walls free from nude or suggestive pictures, keep instruments out of sight. Study medicine, and be a reader of many journals both medical and secular.

(To be continued.)

IODINE AND SOME OF ITS COMBINATIONS.

By John Albert Burnett, M. D., Gans, Okla.

It is a well known fact that iodine and some of its combinations are of great value in general practice. In speaking of iodine, a writer says:

"There is no remedy in the domain of medicine on which the medical profession is so unanimously agreed as to its efficiency in the treatment of certain diseases whether constitutional or functional as iodine or one of its salts."

The tincture of iodine applied locally is an old remedy for erysipelas and is good. It is also applied with good results over enlarged lymphatic glands, etc., and in cases of sprained joints, some cases of articular rheumatism, etc. When the tincture of iodine is applied locally it has only local and counter irritant effect. There is a soluble iodine made of iodine and glycerine which can be used locally for systemic effect. Dr. Williams gave directions for preparing this form of iodine, a few years ago, in Albright's Office Practitioner. The soluble iodine is of much value in all respiratory diseases, incipient phthisis, bronchitis, bronchorrhea, pneumonia, as well as in rheumatism, enlarged glands, skin diseases, syphilis, asthma, rhinitis, croup, gonorrhea, etc. It should always be given on an empty stomach, well diluted, when given internally. Soluble iodine is a powerful alterative, tonic, diuretic, absorbent, antisyphilitic and germicide. It reduces inflammatory conditions especially of a chronic class, stimulates tissue, absorbs and dissipates pathological tissue and its potency is unrivalled in increasing the resistance of the body against disease. Soluble iodine has some advantage over some of the iodides. Iodized calcium is a powerful compound of iodine. Some say it is a chemical and some say it is merely a mixture. It is a valuable remedy for internal use in all or most all cases where iodine is indicated. Patients tolerate iodized calcium when they will not tolerate other forms of iodine. Iodized calcium is one of the leading remedies for croup la grippe, colds, etc.

Colds can be aborted by giving 10 grains of iodized calcium at bed time. It is a good remedy for coughs and if desired can be alternated with Dover's powders if needed.

It is a valuable remedy for la grippe and can be combined with acetanilide if there is much pain and fever.

A tincture of iodine, menthol, oil of wintergreen, and alcohol makes a valuable analgesic.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

OWNERSHIP.

Dr. E. I. Raymond, in the March number of The Recorder, quoting Blackstone, defines ownership as a "legal fiction." Such being the case, why is it that the socialistic party regards ownership at all, be it by the few or by the many?

He says, as do many others of the socialistic cult, that common utilities should be owned by the whole, and not by a few and if this is the case, there is not a single thing, aside from the belongings of the private individual, owned and used within his own family circle, that would not come under a proposition of this sort.

But are the masses in a position to own and control all such matters of business? Are they properly equipped as regards education? Are they sufficiently well endowed with riches, and it requires riches to make a success of any project, to accept and conduct business propositions, either public, or semi-public, in nature? Would a large body of men be more successful in the conduct of a business than would a few and would they receive any greater benefits from such conduct?

Are the people at large desirous of taking a pecuniary interest in every manner of business, in order that their individual interests may possibly be protected? Is the average man prone to place his money in anything that may promise a profit, but which gives no absolute assurance of such profit? Will a man of limited means take the chance as regards the future, which will frequently be taken by the man of wealth?

It is very probable that every one of the above questions may be answered in the negative in the majority of instances. It is a fact that men of limited finances will not even take a chance in a project that not only promises, but assures good returns in the way of future profits. Today in Nevada there is a sugar beet factory under course of construction and is being financed by a stock corporation, it being too large a project for one man to undertake, unless he be in a position to sink upwards of a million dollars prior to any promise of a return. The stock of this company, based upon knowledge of what has been done by companies doing a like business elsewhere, promises a very considerable return of profits in the way of dividends in the future, and there is every indication that the company will not be a short lived one, but will continue in business indefinitely. This stock has been offered in large or small blocks to any one who desires an investment of this sort, but thus far those men who are continually insisting that such institutions should be owned by the whole and not by a few have been slow in taking advantage of the opportunity to invest in this business. The beet sugar product is one that is used by all, and if the argument of the socialist is based upon fact the factory producing such a product should be owned by the whole and not by a few. Here was an opportunity which went begging, in so far as ownership by the whole might be considered. Another instance is a pharmaceutical house which offers preferred stock to the doctor, and which gives a definite promise of a certain percentage dividend yearly. This concern has been advertising this stock for a number of years and still has some to sell. If the socialistic doctors believe that this institution should be owned by the many, why do they not buy this stock?

The doctor objects to what he calls "paper gods," and I would ask what he

is going to do with the "paper made" commonwealths and municipalities of this country, all of which are corporations as truly as are private corporations? Corporations are the result of the conditions which have, and always will, exist. Business cannot be carried on, on any very extensive scale without a considerable amount of capital and it frequently happens that one man, or a few men, are unable to do as they desire without the help of others, even in a legitimate business enterprise. By forming a corporation and offering stock for sale, a working treasury is obtained, and what might have been a failure, due to lack of funds, is developed into a success. An action of this sort, and ownership of this sort is just as legitimate, both morally and under the eyes of the law as would be one man, or mass ownership. In fact, the corporation which sells stock to all comers, in reality offers ownership to the masses, if not in full, in part at least, and as the stock is a salable commodity, the masses are in a position to obtain control at any moment they may so desire. But do the masses care to have full control of any project? Are they willing to shoulder all of the responsibilities coming up daily in every line of business, be it private, municipal or of the commonwealth? I do not think that they are, as history does not show any such inclination on their part.

There has been for many years, and still exists, a tendency upon the part of the masses to legislate corporations out of business, but without offering other than mass ownership, which means another and greater corporation as a remedy. There is much discusion regarding the conduct of corporations and their ownership of various business propositions, but those who do the most talk, as a rule, do the least toward bringing about a correction of any seeming wrongs. Many of these men of the masses fail to vote at elections and farther they vote for men who are pledged neither one way nor another, as regards any proposed legislation regarding privately owned corporations, or publicly owned for that matter. They all do a great deal of talking, but fail to act. They bring forth many ideas, the majority of which will not hold water, regarding the conduct of business in general, but not being practical business men themselves, their ideas are full of fallacies, which if followed out would result in failure.

The average socialist, while insisting that the majority of business interests should be under general control, will not take a chance in anything unless it promises returns, and those immediate to the investor. There are many lines of business in which returns may not be forthcoming for months or years, but which in the end may pay, and pay well. During the non-paying period the laborer, although he may work incessantly, produces nothing and the owner is obliged to keep on paying out money without any returns, whatsoever. Will the average socialist take a chance in a proposition of this sort? He will not, as a rule, but he will, when the business is placed upon a paying basis, invariably insist that it be turned over to the one who labors, in that the latter may be given that which he produced. I have seen instance after instance of examples just like this in the Nevada mining camps when mines which for years have not been productive, were finally made to yield, and yield handsomely. During the years of nonproduction the few were obliged to shoulder all the responsibility, but with the establishment of profits, those who would not previously take a chance, were eager to "gobble" the ownership.

Just such a condition may be found anywhere that one may care to look for it. The socialist does not want a business unless it is productive, and will not spend one cent in development in making it profit producing. The same would be true in public ownership of public utilities. Those who talked, long, loud and learnedly regarding the management of the

street car, gas, electric lighting and other lines of business in which the public as a whole has a direct interest, do not, as a rule, stop to consider the immense investment required before any such service is placed upon a paying basis, or how much it costs to keep it in condition after having been placed upon such a basis. Those who talk the loudest, not infrequently, know the least about what they are talking. They do not realize that it frequently happens that railroads, and other public service utilities, must, in order to keep abreast the times, obtain large sums of money in order that the improvements may be carried out and that it is not a "bed of roses" by any means in which the corporation owners lie at all times. Municipalities are obliged to borrow money with which to build sewers and other town improvements and there is hardly a town or city in this country, which does not carry a bonded indebtedness. Will public ownership of public utilities place them in a position in which they will stay out of debt? I think not. Every state is bonded to a greater or less extent, and even our parent government carries a national debt. The postoffice of this country is publicly owned and is everlastingly in debt, in fact, has never shown a profit upon its business, which is of a greater extent than is that of the average privately owned corporation.

The privately owned business, be it under the control of a corporation or an individual, has profit as an ultimate goal and those employed by such a business must show a profit from their labor, otherwise give up the work. In a publicly owned proposition profit is less thought of and the laborer consequently is assured of work, whether he be a producer or not. Public ownership would, in a certain sense, offer sinecures to those who would work, and that is possibly the reason why so many are in favor of ownership of this sort. If, however, all business were carried on in such a manner, it would be but a short time until we would be but a set of drones, doing only that which would hold our "jobs" and no more. Instead of a pushing nation, devoting our energies to getting ahead, both individually and collectively, we would fall into a condition of lethargy, little caring what happened so long as we were assured that we would get what little was coming to us. Now such a condition is not human, even to the slightest degree. There is not a single person upon this entire globe who has not the desire to forge ahead, and it is this desire that makes life worth the living. It is but natural that we should make an endeavor and make that endeavor count for our own individual desires. Concentrated to the infinitesimal, we are a lot of individuals and selfishness is our most prominent characteristic. We are always on the lookout for something which will advance us as individuals, and even though we may work collectively, it is still with the individual far in the forefront, for we realize that which is good for the many will undoubtedly react to our own personal advancement. Right now I know of a new town in Nevada where every man, woman and child is doing all he can to "boom" that municipality, working collectively as "boosters," but with the idea that the future will bring each of them individual advancement.

Be it as it may, this world will continually go on, as it has since the birth of man, with the survival of the fittest, regardless of whom the owners of the earth may be. Some of us will have opportunities offered us, of which we will take advantage, while others will, having the same offerings let them pass, either through timidity or selfishness. Those who take advantage of their opportunities will be too busy to find fault with either individuals or corporations, and will be successful, but those who do not, will, as in the past, time out of mind, keep busy finding fault with those who have met with success. They will find fault with the privately owned business,

be it under control of the individual or the corporation and with these in charge of things publicly owned, just the same as they always have and we will always have the grumbler among us. No one, no matter how proficient he may have been, or will become, will ever be absolutely satisfactory to all. The world will wag on and on in the same old way. New ideas will be brought forth and tried and discarded and the old tried ones, which have brought success, will continue in force and all this sectarian and party talk will avail but little. It will be a survival of the fittest in the future, as it has been in the past, and the mosquito-like agitator will be brushed aside to come and buzz again the same as has always been the case. Number one will look out for himself at all times, and his brother, when it suits his fancy and he sees that such attention will advance his own individual interests.

George L. Servoss, M. D.
Fairview, Nevada.

REPLY TO ELECTRICAL CORRESPONDENCE.

During the running of my short and general papers on electro-therapeutics in The Recorder I have received a considerable number of letters asking information on particular points, and to most of these I have sent direct replies, but there remain a few items which can just as well be aswered by a paper in this journal and I therefore send this now. One inquirer desires to know which faradic I employ. Faradism is all the same—we simply have a slow or rapid interruption. We may also have a high voltage through a long secondary, or a somewhat higher amperage through a short primary, if the operating cells are used in multiple instead of in series, that is we can connect the carbons in sets of ten, and the zincs in equal sets.

This corresponds to the method of using cautery, and is of no value that I can see anyhow. The so-called high frequency is simply a rapid interruption greater than the usual way—the alternations and the voltage are greater than in common coils. There is also a whole lot of twaddle about medalities which amounts to practically nothing. There is so far as the patient is concerned little in the D'Arsonville business, the sinusoidal, and other arrangements which manufacturers talk a lot about; they have apparatus to sell, and they think that men who know little about electrophysics will buy their outfits in preference to others that are not boosted as such.

Of course I use all these things. patients are influenced by showy effects, but we simply have in galvanism the better effects in a long series of cases, and where faradism is needed a good coil will do all that is demanded. The very best all round faradic is the Kidder No. 16, high tension.

With static we get other spectacular business which goes a long way in nervous people. They think that the sparks and violent rays are something great. So with tubes on high-frequencies or X-rays, they tickle and look showy, but often there is mightly little in the results as a therapeutic efficient.

One inquirer wants to know how I fix my cells for current work. I have two hundred and fifty arranged in several ways. One is in ordinary series, the carbon connected to the zinc of the next, and so on. Another is in sets connected in ten carbons, the zincs also connected similarly. Thus arranged you get higher quantity, the voltage being low, and so we get greater milliamperes. Now here is an important point, I have in each cell a small glass such as a whisky glass with a small quantity of metallic mercury in it, and the end of the zinc is set in this, the effect being to keep the zinc amalgamated constantly, this avoids local action when the circuit is open. I also have in some cells a drachm of calomel which likewise acts as an amalgamation agent. The cells

under consideration are the ordinary zinc carbon with muriate of ammonia electrolyte. These items may seem small, but they are valuable in maintaining cells.

Now about X-ray-tubes, they range over a big section. The cost of them will be from $10.00 to $30.00. I always buy American products if possible, but here we cannot touch foreign apparatus. The Mueller and Gundlach, with the Monopol are each quite reliable. A Gundlach may be had with heavy anti-cathode and osmo-vacuum regulation, and means for suppressing the passage of the current in the cathode-anode direction which is very destructive in its work. The cost of an outfit cannot be stated, it depends on your willingness to spend money. You can get a coil with needed accessories for about three hundred and fifty dollars, but you can go up to a thousand and not then be any too well supplied.

As to rheostats the question is simple, let all cheap-john junk dealers alone. Stove blacking won't work, after you pay for such rubbish it is too late to repent; get modern and effective apparatus to begin with. Wire rheostats are standard, the resistance depends on two factors, length of wire, and cross-section. A thick wire conducts better than a thin one, and a long one slower than a short one. You may have german-silver, phosphor-bronze or manganese-bronze, and if you don't mind expense the platinum wire is unapproachable. I have some of platino-iridium which are superb, but tremendously costly. For managing extremely high power currents in one of my positions we have a series of so-called "dimmers" constructed of granular carbon, bin-oxide of manganese, granulated barffed iron, a mass of which is bound together with a paste of glucose, starch, and two other materials which we don't give away. This is squeezed in a hydraulic press under high heat down to one-tenth of its original volume and when solid and perfectly dry it is sawn into rods which begin at three inches wide by one thick, and growing narrower till it is half an inch wide by a quarter thick. These rods are curved into an epicycloidal, and are operated by a roller-finger arrangement, which describes two-thirds of a circle when the handle is drawn down, producing resistance to affect twelve hundred ampere from full load to practically nothing, the motors, lamps and junctions giving just such current as we desire, less than a quarter of an ampere at the terminals. With a hundred and sixty of them we manipulate sixteen hundred white and nine hundred polychromatic bulbs—blending into any desired shade spectacularly.

I have said that I preferred coils to static-machines, but some correspondents wish to know which machine is the better, there are many. The Nelson is very fine, the Columbia too, the Waite & Bartlett, the mica-plate, and the Kny-Scheerer firm also furnishes a good apparatus.

If you want a true sinusoidal current get a Victor apparatus; that from most high-frequency coils is not strictly sinusoidal.

W. R. D. Blackwood, M. D.
Philadelphia, Pa.

ANTEPARTUM HEMORRHAGE.

I am writing this article for the benefit of some other fellow. Not long ago I was called in to see a primipara, two months pregnant suffering from severe uterine hemorrhage. No violence had been done in this case as the prospective mother was desirous of bearing a child. Upon examination I could find out nothing, there was no dilatation, neither pain. As the patient lived eight miles away,although flow had ceased, I decided to pack vagina. Remained at her home all night. In the morning removed packing, used douch and repacked. The hemorrhage did not return for several days, when I received a hurry call. Found she had another hemorrhage, almost to exsanguination. Upon exami-

ation there was no dilatation neither had there been pain. I used restoratives and injected normal saline into bowels, also packed vagina.

At this juncture I called in a celebrated surgeon, but he could give me no light on the subject. The only thing I could do was watch and wait, consequently I remained at her home every night for nearly two weeks, removing packing in the morning and replacing with new. From this time on the flow did not return. During the seventh month I had her brought to town in order to have her near.

The day after she arrived, labor set in. Now let the reader guess the trouble.

Second case—Primipara, aged 35, married ten years, never pregnant before, desirous of having child, menses stopped two months, began to have uterine hemorrhage, though menses had returned, this continuing slightly for two weeks, called my attention to it. Examination revealed nothing except an enlarged uterus. A few days after had quite a severe flow of bright arterial blood. There was no dilatation nor pain. At intervals for a period of two months she would have a flow, losing probably from one to two ounces of blood, in the interim, however, there was a slight discharge of dark, sanious mucus with some slight traces of blood. She was now four months pregnant and the womb was quite perceptibly enlarged. During all this time I kept her quiet and called into consultation several doctors. All of their diagnoses were problematical, like myself they were in the dark. Examination revealed nothing as this os was tightly contracted. During the fifth month she was taken in labor. Upon examination I found os dilated size of a quarter and protruding what I supposed a placenta previa. There was only a slight flow of blood. The pains continuing there finally came away a large mass resembling jelly, about one quart. This I examined carefully for foetus but I found absolutely nothing. The next doy I succeeded in getting away a very much decomposed placenta.

Now for the first case. It terminated in the birth of a still born foetus, poorly nourished. The placenta came away intact. Upon examining it about one-half of its surface showed plainly where it had become detached from the uterine wall, which accounted for the previous hemorrhages. Both cases terminated favorably.

R. B. Hopkins, M. D.

Milton, Del.

VENEREAL DISEASE.

For the benefit of my learned younger brothers in the profession I wish to quote the treatment of this foul disease as used in the practice of the Botanical Doctors a century ago. It seems to have been tried since. So it was with much of the old botanic treatment, though crude, yet more successful than much of the scientific treatment of the present day.

Here it is: "Take one pound of the bark of the root of sumach (rhus glabra) one pound of the inner bark of pine (pinus strobus), one pound of the inner bark of swamp elm (ulmus americana). boil them in one gallon of water down to three quarts, drink a half a pint three times a day. If costiveness be produced, a dose of salts may be taken occasionally.

"If there be ulcers, they are to be washed with the decoction made warm, the patient at the same time must abstain from all kinds of stimulants. The good effects will appear in a very short time.

"This remedy is one of the best mercies to offending man. Instances can be produced of the effects of it which would stagger credulity. Mercury and nitric acid have failed, but this has never been known to fail when properly applied."

Dr. D. D. Rose.

Valparaiso, Ind.

RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

THE DANGER OF SALVARSAN.

Various medical journals have recently brought warnings in regard to salvarsan, just as the Rundschau has done. They all speak of the dangerous character of the drug and the caution necessary in its use and express doubt whether it will in the end fulfill the expectations to which the first reports have given rise. Some observers, among them Gottheil of New York, go so far as to say they do not consider it superior to mercury.

An editorial in the Buffalo Medical Journal calls attention to a danger which is indeed real and great. It consists in the fact that newspapers and magazines have presented the claims of salvarsan, upon which scientific juries have not yet rendered a final verdict and cannot render one for years to come, to the great public, as settled. Salvarsan has been accepted by the public, says the Journal, as the one, the only avenue of escape from those terrors of late lesions which have been the haunting nightmare of the luetic and here is cause for sincere regret that the medical profession has placed itself into a position of blindly recommending the use of the preparation without sufficient proof that it was all that was claimed for it.

The menace of salvarsan lies not in the damage which it may do when improperly administered to the individual who receives it. Its danger lies in the false sense of security which its ready acceptance has bred in the lay mind and it requires little more than ordinary intelligence to foresee the evils which must necessarily follow in its wake. One injection retards the diseases, the patient believes himself cured, misled by the statements which have found their way into the public press from strictly medical writings. This sense of security, or of power to control results removes from the public mind the necessity for care in sexual relations. The result is likely to be the birth within the next years of children who bear the burden of inherited syphilis. Physicians have already had to contend against the difficulty of having patients submit to prolonged treatment after the most patent manifestations of the disease had disappeared. This difficulty is sure to be greatly increased.

One of the causes of failure of salvarsan may be found in the lack of knowledge of proper dose for any given case. The value of salvarsan depends on the administration of arsenic in the maximum dose the individual can bear, when all the organisms are destroyed. Less than the maximum dose destroys some, those remaining becoming what is known as "arsenic fast" and are not affected by repated administrations of even larger amounts. It is here that the initial danger lies, for these arsenic fast organisms have power to do and do bring about the relapses which are being reported. There can be no doubt of the great usefulness of salvarsan, but its full sphere and limitations will have to be worked out gradually.

RICE DIET IN SKIN DISEASES.

L. D. Buckley reports in the Medical Record good results from a diet restricted mainly to rice in acute inflammatory diseases of the skin. In several cases of very acute general lichen planus, dermatitis herpetiformis and acute urticaria the results have been striking. Cases of rapidly developing psoriasis with much congestion have been most favorably affected by this plan of diet. The diet is absolutely nothing but rice bread, butter and water, and after a few days the relief is generally quite marked. Rice,

white bread and butter were chosen as containing the smallest amount of nitrogen, while affording sufficient calories, and ordinary water, hot or cold, was freely supplied for the necessities of the system. Milk was avoided on account of its large protein element and also coffee, tea and chocolate as having xanthin products. As to the preparation of the rice, which has much to do with the success of the treatment, it should be thoroughly cooked with water and not with milk and generally it is better to have it dried out somewhat by leaving it uncovered on the fire for awhile. The rice is freshly prepared with butter and salt, and eaten slowly with perfect mastication. During the active rice diet, milk is forbidden, but my be given later. This strict rice diet regimen is to be continued from three to four days, more commonly the latter. The return to mixed diet should be gradual, an ordinary moderate meal may be taken at noon for a few days with the rice morning and night. Then a light breakfast, while the rice diet at night is continued for a time longer. It is well to keep the evening meal light for a while as sleep is better and less disturbed by itching.

What a field this opens up for the enterprising manufacturer of patent foods.

IDENTIFICATION BY FINGER PRINTS.

An occurence which developed recently in London seemed at first to discredit the reliability of finger marks as a means of identification, but later established it on a firmer basis. A man, charged with a felony, was found according to the evidence of the finger point, to have served a sentence in 1909, but he was able to show by his army papers that he was with his regiment at the time. An alibi being thus apparently established the prisoner was discharged. Further investigation by the police brought to light the fact that he had not been a soldier at all, but had stolen the discharge papers which he showed to the justice. Further evidence that he was the man imprisoned in 1909 was furnished by tattoo marks. The occurence furnishes a strong proof in favor of the reliability of the test of the finger print which has come into pretty general recognition.

TRYPSIN THERAPY.

Treatment by proteolytic enzymes of tuberculous abscess, by hygromata, enlarged lymph nodes, etc., has been studied carefully for the few years There is abundant evidence that the treatment often gives satisfactory results. While various enzymes have been employed, it would appear that a one per cent trypsin solution gives the most satisfactory results. It is strange that the number of reports on the subject is so small in view of their favorable character. Bruening, repeating his conclusions in the Deutch Med. Wochenschr. finds trypsin of value in small suppurating foci in bony tissue. He agrees with others in finding it of value in sold abscesses, but limits its use to small stationary lesions. In burrowing abscesses he cannot see that it is in any way superior to iodoform glycerin. In joint tuberculosis as well as in large foci in bone, he finds it unsuitable, likewise in caseous lymphatic glands. It seems a fair generalization to say that trypsin accomplishes nothing in caseous or proliferative lesions. As to technic he punctures the abscess wth a trocar and evacuates it and then injects the trypsin solution. Other operators do not evacate first, but inject the ferment into the accumulation of pus. The trypsin acts undoubtedly by peptonising the pus. Bruening has treated over one hundred cases of local tuberculosis in this manner. He repeated the injection at weekly intervals, if necessary, and has never encountered anaphylaxis or a drug eruption as a complication. The Medical Record, in commenting on the report, thinks that we may look upon the trypsin treatment of local tuberculosis foci as at least on a par with the old iodoform absorption treatemnt. Surgeons of course favor the radical surgical treatment of

(Continuedon page 113)

"The Electro-Therapeutist"

H. C. BENNETT, M. D., M. E., Editor

CATALYSIS AND NUTRITION.

Now cometh electrolysis, phoresis and catalysis, but the greatest of these is catalysis.

Let us study the subject of that peculiar action of electrification, or that effect which it has or exerts upon the vaso-motor nervous system by which it affects nutrition. This catalytic action is the most important of all the attributes of electrification, and catalysis as the keystone of the entire arch, and upon its thorough understanding depends our success or failure in the science of the practice of electro-therapeutics. When I say science, I use the word advisedly, because it is a science, and while medicine is not an exact science, still the application of electrification as a remedy in the relief and cure of deranged or diseased conditions, has certain fixed laws and is governed by rules which, when understood and complied with, are as certain in their action as are the laws of the Medes and Persians, and under the same conditions will surely and repeatedly bring about the same results.

Therefore, let me urge upon you the great importance of thoroughly mastering this subject, and if you do so, I assure you that you will never be at a loss to know what application to make, to get the desired effect, and all the therapeutics of electrification will be plain and easy. Electrolysis, which will be explained in another paper is a chemical process, and is brought about only by the constant galvanic current.

Phoresis, which will also be taken up fully later on in our study, is purely a mechanical process, and is brought about by the galvanic and the static modes, but it remains yet to be shown that it is in any way secured with faradization.

Catalysis, however, is entirely a physiological process, dependent altogether upon the definite action of all the known variations of the electric condition, known by whatever name they may, galvanic, faradic, static, sinusoidal, cautery high-frequency or X-ray phenomena.

We see at once from this fact, how universal and far reaching is this catalytic action, and how necessary it is to know and understand, because it follows in some way either beneficial or harmful, good or bad, upon every application of electrification, from every known source of generation, and from all methods of application.

By the catalytic action, the nutrition is directly and indirectly, locally and generally affected, and by this process the stimulation, sedation, temperature growth and function of every part of the body can be more or less accurately regulated through the vaso-motor nerve supply to the part, thus controlling the circulation.

All positive applications will produce sedation, relieve pain and inflammation, contract blood vessels, thereby quickening circulation. All negative applications produce stimulation and dilate blood vessels, thereby slowing the circulation.

These are the local effects, while at the same time there are manifest, indirect general effects in remote parts.

This accelerated flow of blood will be osmosis, hasten the removal of waste products, and at the same time replace the loss with fresh deposits which feed the parts making them grow. The increased blood supply also has a thermic effect, warming the cold parts and cooling the hot parts by re-establishing the

normal equilibrium. This removes deposits, hypertrophies and effusions, and on the other hand nourishes and feeds atrophied and wasted and starved conditions.

You at once readily see that this nutritional effect of electrification is of the greatest importance, If we can increase the nutrition of a weakened or diseased organ or tissue, we assist in strengthening it and helping it to its normal condition.

The mechanical effect of electrification as pertaining to nutrition can be explained in quite a similar way to massage. The faradic mode produces better mechanical effects than the galvanic.

The interrupted mode, being constantly opened and closed, during its passage through the body produces very much the same effect as gentle tapping or pounding or rubbing of the parts. This communicates an effect to even the more deeply seated tissues.

The corpuscles of the tissues through which the mode passes are agitated, and the beneficial results obtained, are due to a certain degree to the endosmotic action which has been stimulated by the mode.

The static potential variation or vibratory stress which will be fully explained in another talk on static electrification, also is very marked in this respect.

Thermic Effects—The passage of the modes through the tissues also causes heat . This is more noticeable in using the heavy galvanic mode, but it has been demonstrated that even mild modes temporaraily raise the temperature of the parts through which they pass.

A static insulation almost invariably raises the body temperature and produces a restful feeling It also increases blood pressure.

Physical Effects—One of the physical effects of the passage of an electrical mode through the body is to cause transference of substances from one pole to another. The stimulation of this osmotic action depends upon the physiological rather than the mechanical or chemical effect of the mode.

The Chemical Effects—of electrification are secured by the galvanic mode, there being very little, if any, chemical effect from the use of the faradic, or sinusoidal, and none at all from the static modality.

The chemical effects of electrification are chiefly of an electrolytic nature. Many of the chemical substances of which the human body is composed may be decomposed by the action of the galvanic mode. The effects produced by what is known as the catalytic action of electrical modes are due to an increased absorption produced by dilation of the capillary blood vessels and lymphatics, an increased capability of the tissues for imbibing fluids through osmotic processes, changes in the nutrition of nerves resulting from the stimulating and refreshing effects produced, changes produced in the corpuscular arrangement of tissues caused by the electrolytic action and the results of the transportation of fluids from one pole to another.

The catalytic action is doubtless responsible for the results produced in the treatment of chronic exudations of the joints, glandular enlargements, cicatrices, swellings, fibrous adhesions, contusions, sprains, etc.

As will be stated more fully in our study of electrolysis the positive pole attracts oxygen and the acids; the negative pole attracts hydrogen and alkalies

The process started by the action of electrification continues for some time after the treatment has ceased.

Through proper electrical treatment we may increase or diminish or modify the action of an organ or tissue.

We may affect the circulation and the absorbents and promote secretion or excretion. This is through a physiological process.

In the same manner we may, with the

proper mode and the proper method of application, produce various phenomena upon the skin, increase the process of exudation, raise the temperature, affect the nerves of special sense, causing flashes before the eyes, a peculiar taste and odor, and by electrizing the pneumogastric nerve increase or diminish the heart's action.

Through the effect of the electrification upon the heart and on the muscular fibers of the arteries, we may affect the circulation most decidedly. We may also influence the circulation through the central and peripheral nervous system.

Through a general treatment of electrification, either mode being used, we may affect capillary circulation increasing the flow of blood, dilating the veins and producing an elevation of temperature.

Through the increase in circulation the warmth of the parts is increased, and will usually remain at an elevated temperature for some time after the treatment.

An application of sufficient strength will stimulate the activity of the secreting organs.

The secretion of the mucous membranes, the salivary glands, the stomach, liver, kidneys, etc., may be greatly increased by proper electrical treatments. Various modes are capable of stimulating the secretion of all these organs, but the galvanic mode acts more powerfully and produces better results. Many cases of catarrh may be sured by stimulating the secretion of the mucous membranes.

RUNDSCHAU.

(Continued from page 110)

local tuberculosis, but the general practioner particularly in country work, can but seldom resort to it and must employ pallative measures. The chances offered by trypsin treatment and the simplicity and ease of its application are therefore of special interest to him.

HYPODERMIC USE OF LOBELIA.

At the present time lobelia is being used hypodermically for various disease conditions. The hypodermic use of lobelia will no doubt prove to be one of our best remedies in diphtheria, convulsions, and various other disease conditions too numerous to mention. The hypodermic effect of lobelia is somewhat different from the effect it produces when given by mouth or by rectum. It deserves a thorough trial in scarlitina, pneumonia, tuberculosis, hydrophobia, uremia, epilepsy, surgical shock, chloroform narcosis, congestive chills, syncope, syphilis, tonsilitis, edema of the glottis, as well as various other conditions.

It will not prove to be a cure all but no doubt will come as near it as any remedy we have.

J. A. Burnett, M. D.

Gans, Okla.

BACKSET.

I feel sorry for our good friend, Dr. Mastin. He will recall that I predicted that the socialists would be knocked out in Milwaukee. Well, they were,—bad. Knocked out four councilmen and school trustees. Not only were they defeated there but in nearly every place else: Kansas, and Illinois. Then the lone member of Congress. Watch him line up with retrogressive, old Champ Clark's crowd.

I have seen the "Know Nothing" party rise and fall, the "Greenback party" rise and fall, but the two great historic parties will continue to shape the destiny of this country, long after Dr. Mastin and I are in "Hades." These sporadic, ephmereal parties are soon gone, and with the socialists it will be the experience of the handwriting on the wall of Belschazzer's banquet hall—"Mene, Mene, Tekel, Upharsin."

D. L. Field, M. D.

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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VOL. 14 APRIL, 1911 No. 4

The leading article in the April McClure's is the story of "How Mrs. Stowe wrote 'Uncle Tom's Cabin,'" told by her son, Charles Edward Stowe, and her grandson, Lyman Beecher Stowe. Many of Mrs. Stowe's letters telling of her life at that time, and the furore that greeted her great epic on slavery at the time of its publication, are published here for the first time.

TRANSFERRED BUT NOT DISPLACED

Drawn by Grace M. Norris, M. D.

Mr. Asker: "So you found your 'Painless Filling' sign that the college boys took."

Dr. D. D. S. Puller: "Yes, the confounded young scamps had stuck it up over a restaurant."

The Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, Devoted to the Best Interests of the Whole Profession

Vol. XIV MAY, 1911 No 5

THE EFFECT OF ENVIRONMENT ON BACTERIA

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

When we consider the extreme simplicity of the bacterial structure, which is probably as simple as any form of life that is known, consisting merely of endoplasm and ectoplasm, it seems remarkable to note the extremely complex functions which they possess. Usually structure and function are related. The most complex organisms have the most complex functions; but in the case of bacteria we have a very simple organism with very complex functions.

It is our purpose in this article to consider the effect of surroundings and external conditions on the functions of bacteria. Some of these have a stimulating or tonic effect, while others have the reverse—a depressive effect. And from the standpoint of the physician, it is important to know what conditions will stimulate bacterial growth and vice versa.

Possibly the most important item under this heading is food. All beings must have food, and bacteria are no exception. And in this respect they naturally fall into two classes, the parasites, which live on living organic matter, and the saprophytes, which live on dead matter. As we are more particularly interested in the first class, the parasites, we may dismiss the saprophytes with the simple statement that they seem to be able to get along on much less food than the parasites. Yet, they may be considered as benefactors to the world at large. All the remains of higher plant and animal life, thousands of which die every hour, would soon so encumber the surface of the earth that life would be impossible, were it not for these little scavengers, whose duty it is to keep things clean, and they do it by means of putrefaction and fermentation—the one applying to proteids and the other to carbohydrates. They convert this mass of dead matter into a number of gases. The foul smell which is the invariable accompaniment of decomposition is due to the gases—hydrogen sulphide, ammonia, etc., produced by the action of the saprophytic bacteria on the dead material.

We have already called attention to the fact in a previous article that the food required by bacteria resembles that of animals rather than that of plants. While comparatively few species can subsist on inorganic mixtures—and these are all saprophytes—the great majority, especially the parasites, must have material out of which they can get the elements they need. These are carbon, oxygen, hydrogen, nitrogen, phosphorus, sulphur, iron and calcium mainly. Compared with animal requirements, this list is significant.

Food must not be too concentrated. When the osmotic pressure without is too great, the bacterial cell is plasmolyzed—crushed so to speak. That is why condensed milk will not sour, while ordinary milk does; why weak sugar solutions are excellent media for bacteria, while concentrated syrups keep indefinitely; or, why a strong salt solution (brine) is a preservative. It is simply a case of the food being there; but the

medium is uninhabitable for bacteria as the osmotic pressure is too great.

The reverse is also true. When the osmotic pressure without the cell is less than within, the cell becomes turgid, and may rupture. Most bacteria could not exist in distilled water, even outside of the lack of nutriment therein, for this reason. The phenomenon is similar to the lacking of blood cells in distilled water.

Another important factor is moisture. As bacteria have no mouths and teeth, but secure their food by absorption through the cell-membrane, their food must be in solution, so they must be surrounded by moisture. This is true, even when they are growing on solid media, where they are surrounded by a film of moisture, and die when the culture becomes completely dry. The species vary in their adaptability to do without water. Spores, especially, can stand much drying. Anthrax spores have been kept in a dried state for a number of years. The cholera spirillum can only stand it for a few days at the most. On the other hand, the diphtheria bacillus has withstood drying for 194 days; but all of them will succumb sooner or later.

Like in all other forms of life, breathing is an essential function of bacteria, and as breathing means the taking up of oxygen, we find here, that while the species vary as to the way they get their oxygen, none of them can do without it. It must not be understood that in speaking of an organism as anaerobic, or, as some bright authors put it—"not requiring oxygen"—that this is the case. No, merely that instead of getting it from the air they get it from the surrounding medium. As fishes cannot breathe the air but extract their oxygen from the water by means of gills, they might also be called anaerobic. Just as we have amphibious animals, which can exist both in and out of water, having the necessary organs to extract oxygen both from air and from water, so we have faculative bacteria, who can extract oxygen either from the air or from their environment.

In this connection it is a peculiar fact that some organisms lead a double life; being saprophytic and aerobic during their early life and parasitic and anaerobic later on. Such is the tetanus bacillus. It occurs in the upper layers of the soil, where oxygen is abundant; but as soon as it is placed on artificial media, or invades the body, it will not grow in the presence of free oxygen. At the bottom of a deep puncture, such as made by a nail or a penetrating fragment of some fire-works, it flourishes and produces its toxin. If the wound is laid open to the air they are without power to do harm.

While bacteria as a class will grow at all temperatures O°C. to 1000°C., still the extreme forms are of little importance. Those bacteria in whom we are chiefly interested—the pathogenic forms—have a much smaller range. A few points must be taken into consideration here. Every species has its maximum, or the highest temperature it will grow at (not remain alive, but multiply) its minimum, or the lowest in a similar sense, and its optimum, at which it grows its best. The thermal death point is that temperature which will destroy a species. For the sake of uniformity, this is taken at an exposure for ten minutes in a moist condition; moist heat has always been more efficient in destroying bacteria than dry heat. The optimum temperature of all pathogens runs from 37° to 40° C. (body temperature), and few can live above 60°C.

This is the underlying principle of the so-called pasteurization of milk. Exposure from 15 to 20 minutes to 60°C. will kill all disease-producing bacteria likely to be in milk, without producing changes in its nutritive qualities. Spores and saprophytic bacteria are not effected. On the other hand, to sterilize milk, by raising to the boiling point, will surely kill all bacteria, even spores; but lowers its nutritive value, by coagulating the proteids.

There is a popular notion that cold is destructive to bacterial life. This is not

the case. Multiplication is undoubtedly checked, but they are not killed. The bacillus of typhoid has lived for 103 days frozen in ice. Of course, extreme cold, such as is produced by liquid air or carbon dioxide snow, may be more effective; but more research is needed on this point.

Possibly one of the most interesting points in connection with this subject is that of the effect of chemicals. Outside of the reaction, (slightly alkaline) which most pathogenic bacteria seem to prefer, many chemical substances seem to have a direct effect on bacteria; which seems to consist in either an attraction or repulsion. This has been called positive and negative chemotaxis; but the most important phase of chemical influence on bacteria is the destructive action which some chemicals possess—the germicidal action. Such agents are frequently referred to as antiseptics or disinfectants. There is more or less looseness in the use of these terms. An antiseptic is a substance which merely prevents the growth of bacteria; a disinfectant destroys infectious bacteria only; a germicide kills all bacteria. All disinfectants are antiseptics, but not all antiseptics are disinfectants. To illustrate—bichloride of mercury is antiseptic in 1-1,000,000 solution, but has no disinfectant action until the solution is at least 1-500,000. This is probably the most effective disinfectant we have, outside of heat. but its use is limited, on account of its tendency to combine with proteid matter and become inert.

It is our purpose in the next article to take up the subject of sterilization, both by heat and chemicals. more in detail. At present we wish to call attention briefly to the effect of light on bacteria. The germicidal action of direct sunlight, especially on pathogenic bacteria, is so pronounced that this is an important thing to consider. This action is not due, as might be supposed, to the heat rays, as it is just as pronounced when these have been intercepted. Certain parts of the spectrum, again, are much more effective than others. The greatest effect is in the blue and violet, less in the others, and practically none in the red and ultra-violet. Also, if the light be passed through a screen of potassium bichromate, which allows only the less refracted rays to pass, very little action is produced. On the other hand, a screen of ammoniated copper sulphate, which allows the more highly refracted rays to pass, produces the maximum germicidal effect. Electric light has the same effect as sunlight, but to a lesser degree.

A peculiar fact, and one that is difficult to explain. is that numerous experiments have shown that the X-rays or radium emanations seem to have absolutely no detrimental effect on bacterial growth.

One more influence might be noted here, and that is association. It has been found that certain species may grow together with mutual benefit—symbiosis—such as diphtheria and tetanus. while others do not get along at all, one or the other being exterminated. This is antibiosis, and an example is the inhibiting influence of bacillus pyocyaneus on anthrax. This matter will be taken up more fully under the individual bacteria.

♠ ♠ ♠

Asafoetida has been used locally to the meatus urinarius in women in cases of coma. It is dropped on slowly drop by drop. "And the leaves of the tree were for the healing of the nations." Rev. 22:2.

Hot cloths applied over the vulva in labor will assist in relieving the pains. Cloths wrung out in hot water and applied over the vulva and perineum and held on firmly with the hand and changed as often as they lose their heat is of great value to prevent laceration of the perineum.

J. A. Burnett, M. D.

ACUTE GONORRHEA

By HENRI LESIEUR, M. D., Chicago, Illinois

When a man finds himself affected with gonorrhea he wants to get rid of it, and that p. d. q. Reasons are unnecessary to mention. Any shadow of a chance for abortive treatment is eagerly grasped, regardless of danger, for nothing can be worse than the present situation. Unfortunately by the time the infection is realized, it is usually too late for abortive remedies. The older specialists who put faith in silver insisted that to be effectual it must be applied before the discharge had become cloudy—and few seek the physician so early.

Knowing the efficacy of silver when employed to prevent the development of ophthalmia neonatorum, it seems strange that persons who expose themselves to the possibility of gonorrheal contagion do not employ similar argentic solutions as preventatives.

When the malady is declared, the abortive treatment consists of injections of sublimate, 1 to 20,000—8,000, or silver nitrate as an irrigation, 1 to 300, or an instillation 1 to 20, repeated daily for a week. This induces an inflammation of its own, sometimes severe, with urethral swelling that may even obstruct the passage of urine. Exceptionally the specific injection is aborted; as a rule it is not undoubtedly this is often due to reinfection from neglect to asepticize the surrounding parts, the clothing, hands, etc. These acrid injections are also blamed for causing urethral stricture.

Similar results follow strong injections of potassium permangante, 1 to 4000; but the effect of mild irrigateores, are better. Roblin, who discusses this malady in Le Monde Medical, January, 1911, gives a urethro-vesical irrigation twice daily, of the strength named, 1 to 4000, at a temperature of 105°F. At 11 a. m. the patient gives himself an injection of 1 to 1000. After five days the irrigation is employed but once daily, a quart being used, the strength being 1 to 4000. The strength is gradually increased, if the urethra still exudes moisture, to a maximum of 1 to 1000. While the flow ceases within eight days, the irrigations should be kept up four days longer to prevent relapse. The results according to Roblin are all that could be asked.

The irrigations should be made with the patient lying on the back, the fountain raised four feet, using an olivary nozzle. The anterior urethra and meatus should first be carefully disinfected. Not more than a pint of the fluid should enter the bladder. The patient must urinate before and after each infection. This method is only applicable if commenced during the first 36 hours. The irrigations must be given by the physician alone.

The ancient treatment by copaiba has been generally abandoned, While it may stop the discharge when given to full effect the mucous membrane remains turgid and tense, and it is a relief to the patient when the stomach refuses to tolerate the remedy and the discharge recurs. Many results are claimed for sandal oil, and especially for its active principle arheol. Lacomte gave this on the fourth day of the disease, and relieved the pain within 48 hours.

Still better are the results achieved by saturation with calcium sulphide. This is best used in very small and frequent doses, one to three centigrams every half hour, until the perspiration exhales the characteristic odor of the drug. By this time the gonococci will be found to be motionless, their activities having ceased. This method has the advantage of providing against inefficiency and carelessness, since the sulphide pervades every part of the body and no coccus escapes its influence. Calcium sulphide also temporarily inhibits the sexual function, which is in every way desirable.

The effect is enhanced by adding arsenic sulphide, a milligram every two hours.

The patient must go to bed at once, keep quiet, avoid excitement of all sort, such as alcohol, condiments and stimulating food, drink, books and company. His bowels must be swept out by a few doses of calomel and salines, avoiding podophyllin which, as a sexual stimulant may occasion chordee. This latter calls for gelseminine to be pushed to full effect, or until the mouth is dry. No matter what may be the treatment, the best and speediest cures follow the regime. It is necessary to get rid of all fear of the sulphide and give it to speedy saturation.

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TREATMENT OF ACUTE GONORRHEA

By T. HENRY WHITING, M. D., Rockford, Illinois

Much has been written upon this subject, still I find a great many physicians fail to cure in less than two months or more. My experience in twenty-eight years' practice has led me to understand that any case of diplococcus gonorrhee can be cured in less time. Although gonorrhea is caused by a specific microbe it can be easily destroyed without injury to the patient. The treatment must therefore be entirely symptomatic and resolves itself into internal, local, constitutional, destitico. By internal treatment, we mean such remedies as will relieve the sufferings of the patient and render the urine somewhat less acid and is bland and soothing to the mucous membrane. The treatment will diminish the painful micturation and soothe the irritated membrane while the urine will clear up rapidly.

Local Treatment. If the symptoms are not very severe at first we use the injection. In a large number of cases the discharge stops and the urine is free from shreds in course of a week. There are a number of cases however in which the symptoms will not disappear entirely. There may remain a morning drop or the second portion of the urine may contain shreds showing an extension of the process into the posterior urethra and possibly to the prostate gland and seminal vesicles and it would be well to continue the treatment. If the prostate is infected it should be massaged twice a week by the patient at night until neither gonococc in or pus cells are found in the expressed secretions. After a few treatments we find some cases have infiltrated patches and must now pass a small sound up to No. 16 twice a week.

As regards the constitutional treatment the diet must be bland and free from irritants. I do not need to go into the detail as it is well described in all the modern text books.

Caution—Never in my 28 years of practice have I used an injection of silver nitrate or permanganate potash. It is an injury.

For internal administration I use the compound tablets composed of ext. capsicum 1-5000 gr., sulphur gr. v. cream tartar gr. 1-100, ipecac ext. gr. 1-5, bisulphate calcium gr. 1-100, acid arsenicum gr. 1-1000.

These tablets are taken 3 times a day. Dissolve in the mouth. They do not produce nausea or any unpleasant conditions of the stomach. They are pleasant rather than disagreeable to the palate and not offensive, they do not cause dyspepsia. They do not congest or irritate the renal epithelium or give rise to albumin in the urine but lessen the acidity and render the urine more alkaline and relieve painful micturation rapidly. It has a soothing and antiseptic action on the mucous membrane of the genito-urinary tract. One of the advantages recognized in the use of the internal treatment is the fact that the blood becomes saturated with the antiseptic

matism, cystitis, pyelitis, prostatitis, epididymitis, etc., is considerably reduced and the likelihood of a severe str cture is lessened.

This method of treatment which is simplicity in itself has resulted in a cure for me in a week or 10 days. During the 28 years of practice good results have been often observed from its use in 3 to 4 days.

Treatment No. 1. In men inject once a day a solution of boracic acid gr. v. to ℥ i. aqua distilled filtered. In women use a sponge tied to a stick or sponge and cleanse the parts. Then advise them to use a solution of boracic acid gr. xx, hamamelis ext. ℥ ss to ℥ x aqua warm; inject twice a day. Give tablets 3 a day.

Treatment No. 2. If you follow these suggestions you will never fail to cure your man in from 6 to 10 days.

Formula. Take acetate of lead dr. ss, soft water ℥viii. Dissolve thoroughly well in a bottle; in another bottle dissolve pure sulphate of zinc dr. ss, soft water ℥viii. Mix the two solutions thoroughly, then add hamamelis ext. ℥ss, kreosotum ʒi, opium ʒi.

Filter through cotton in a glass funnel into a clean bottle. I make this in gallon lots ready for use.

Directions for use. Before retiring to bed, let him first pass water, wash off all discharge and inject with a glass syringe. Cover the head with cotton to prevent any discharge soiling the clothes and running chances of re-infecting himself; inject once in 24 hours and that at night. When he passes water through the day he should always wash off the pus and apply fresh cotton. On the 4th day I pass the sound and do twice a week. For the internal treatment I give the tablet.

If you will give this treatment a trial you will be pleased with the results. If your patient has blennorrhea or gleet give him terbinthina guttae iii.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 96 April Recorder)

It may be well to devote some articles to the history of diseases, and the therapeutic measure employed in the early times. . .

For instance, diphtheria has existed as long as the history of man extends. There are evidences that it existed two thousand years ago at least, and the description of the malady tallies with our understanding of its nature today. Hippocrates described it, and gives the name of the first recorded victim. Celsus, also, recognized its nature; but Araeteno was the founder of our knowledge of, and the treatment of the disease. Very likely it was one of the plagues of ancient times. It was terribly fatal in Holland in 1557, in Basle in 1567, Paris in 1576, in Spain from 1581 to the close of the century. In 1748 Fothergill published the greatest essay upon the disease that had ever appeared up to that time. A better knowledge of diphtheria was furnished by Dr. Samuel Bard. The description of the disease, which made such fearful ravages in the eighteenth and early part of the nineteenth century was described by Dr. Starr in 1749, as follows:

"The Morbus Strangulatorius, with great propriety and justice, thus denominated, has within a few years raged in several parts of Cornwall with great severity. Many persons have felt its cruelty, and whole families of children, whence its contagious nature is but too evident, have, by its successive attacks, been swept off. Few, very few, have escaped.

Many in the first attacks have complained of swelling of the glands, as tonsils, parotids, submaxillary and sublingual glands. Not a few, early in the disorder, have had gangrenous sloughs formed in their mouths. I have not mentioned a fetor oris, as some had it, and some did not. He said he had frequently examined the matter these patients have, at times, spit and it was of a jelly-like nature, glary and somewhat transparent, mixed with white, opaque, thready matter, sometimes more, sometimes less, resembling a rotten membranous body, or slough; such a slough I have seen generated on the skin of one of the patients, in the neck, and arm, where blisters had been before applied. This white had the aspect of oversoaked membrane, which being oversoaked, had become absolutely rotten.

The disease raged as a fatal epidemic scourge for centuries, and was not thoroughly understood, nor successfully treated in all that time: and it was not till 1858 that the name diphtheria was given to it. In England and Wales, in 1859, over 1,000 died of the disease, and over 5,000 of croup, which no doubt, was largely due to diphtheria, as diphtheria has often been diagnosed as membranous croup. I am not one of those who don't differentiate between membranous croup and diphtheria, however. They are both fatal enough, but in the light of our present day therapeutic knowledge, diphtheria is more amenable to successful treatment, than croup. Antitoxin in time will save the lives of diphtheria patients, unless it is a malignant case. I have never seen anything save a malignant case. Right here I want to say, that I never had any success in the treatment of membranous croup. My cases have generally been fatal. I had a case of diphtheria and a case of membranous croup, at the same time, and the diphtheria recovered, while the croup case died. The next case of croup I get, I am going to thoroughly test Abbott and Waugh's calcidin. I have faith that it is the thing.

The treatment of diphtheria in old times, was by support of the strength, stimulants, local applications to the throat, rest, pure air, a free use of ice, sucked slowly; and no attempt to neutralize poisons, or push elimination, but swabbing the throat with a solution of nitrate of silver, a mixture of hydrochloric acid and honey, tinct iron and glycerine, chlorate potassium, etc., etc.

They tried all sorts of remedies for the membranous exudation, but most cases were fatal. In later times, the atomizer, with carbolic acid, hydrogen dioxide, and glycerine, began to show good results.

I have had pretty fair success in the employment of a ℞ as follows:

℞
Acid Carbolic, gtts xvj
Dioxogen.
Listerine.
Glycerine.
Fld. Hydrastis, Colorless aa ℥ss.
M. Sig.
Use in atomizer, and spray throat every hour.

Nourishment, and whites of eggs, whisky and milk beaten together, for support. Don't do much locally. Inhalations of antiseptics in the form of steam in the room; or the carbo-cresoline lamp, has a good effect.

Sometimes I use as a spray:
Pulv. Potass. Chlor. ʒi.
Tinct. Ferri Chlor. qs to dissolve potass.
Aqua Dest. ℥ iss.
Glycerine ℥ ss.
M. Sig.
Use freely in atomizer.

Still, the antitoxin is infallible if the case is taken in time, and enough units used. It is all right to use local treatment also, as we can thereby mitigate painful symptoms.

So much for diphtheria.

Now as to scarlatina. The ancients called it "Rossalia." It raged in Europe under that name, and it remained for Sydenham to name it scarlatina in 1676. It was a long time before the three diseases, or symptoms, were described as the simplex, anginose, and malignant.

"Dengue," or "break-bone fever," as it was called down south, was first observed in Calcutta, in 1824, where it prevailed as an epidemic. It marched westward and in 1780 Dr. Benjamin Rush first described it as occurring in Philadelphia. However, it is mostly found in the Indies, and our Southern states. No doubt it is a malarial fever, but the suffering of patients from headache, pains of the limbs, swelling of the joints, chills and fever, are described as most intense. It was treated about as one would treat la grippe and rheumatic fever.

As to smallpox, the ancient Greeks and Romans do not seem to have been acquainted with the disease, however, Procopius, in the middle of the sixth century described the striking characteristics of the disease. It was claimed that it began A. D. 544, in Egypt, from which it spread to Constantinople. The earliest and best description of the disease, in ancient times, was given by Rhazes, an Arabian physician, about 910, A. D. There was a tradition that the disease had its origin among the camels. The most interesting reading of the nature of smallpox may be found in "History of Smallpox" by Moore; "Antiquity of Smallpox" by Willan; Baron's "Life of Jenner"; Monro's "Observations on the different kinds of smallpox"; and a volume of Sydenham's works. It was Lady Mary Worley Montague who introduced inoculation as a modifying measure, in 1722. It was heroic. This practice was superceded in time by the discovery of vaccination, by Jenner. The old time treatment of smallpox was vigorous and except for the time of the inoculation, nor did it result in any blood disease. Edward Jenner, a surgeon's apprentice in 1768 made the discovery, and recommended its transmission from one arm to another, i. e. from one subject to another. For many years, I practiced that plan, and only used crusts from the arms of healthy children, from healthy parents; and I am sure no evil consequences ensued. However, the virus used now,is better, coming as it does direct from the heifer's udder.

Another disease, viz., hydrophobia, should be adverted to, because it was recognized by Celsus, Galen, and Dioscorides. Before the Pasteur treatment it was conceded to be almost invariably fatal. In old times, they were impotent in their efforts to mitigate its terrors, —much less cure it. Since the days of Pasteur, if a patient is promptly subjected to the serum treatment, immunity is assured. I wrote several articles on hydrophobia, in the Philadelphia Medical Summary, and I am not inclined to say anything more on that subject, however, I will say to those who may be sceptical as to the existence of such a malady,—that I have treated such cases, and am not alone in my positive diagnosis of it. The two cases I can remember, were promptly and horribly fatal. I have knowledge also of several who were bitten by rabid dogs, and who having been hurried to the Pasteur Institute, have remained immune from the disease.

Probably no disease, save pneumonia, has been more investigated, more discussed, and treated in a more variety of ways, than enteric, or typhoid fever. Every doctor thinks he knows the most successful therapeutics for the disease. Perhaps there has never been a better description of the disease, than can be found in the work entitled "Bartlett, on Fevers." That was in the early part of the nineteenth century. When I was a young man the treatment of typhoid was something fierce.

heroic. Now, it is very simple, and conservative. The old theory, "better out than in," does not apply to treatment in this day. It is now regarded as not under such control as will cut short the disease; the treatment is to avert dangerous accidents; assuage the suffering incident to it, and mitigate, as far as possible, the fever, thirst, headache, backache, and pains in the joints. Before leaving this subject, it is strange and unaccountable that there should be such opposition, in some quarters to the preventive measures against smallpox, as vaccination. The original Jenner procedure was to transfer cow-pox virus to the human subject. Dairy maids were immune because they had generally been affected with cow-pox; and it never impaired their health

Quinine and whisky were the sheet-anchors, and to see a patient without a tympanitic abdomen was a rarity. Elimination and antiseptics, were not thought of. To see a case without a dry brown cracked tongue, and low, muttering delirium, with subsultus, was very rare. To be sure, the nature of the disease was not well understood; and that it was a germ disease never entered any one's mind. Of course, the mortality was great. Few recovered, and those few after weeks and weeks of illness.

Now, it is one among the most manageable of diseases, because the treatment both scientific and simple. It has come to be almost an evidence of a physician's neglect, or ignorance, if he loses a case now-a-days.

The disease made fearfully fatal ravages in ancient times, and all because the disease was not understood, and because the treatment was, in the very nature of things, more fatal than the disease itself. That any severe case should recover, must have been a miracle. In the very early times it was called by the French, "Entero-Mosentorinque," Enteriate-Folliculuse," etc.; by the English, "Autunal or Fall fever," "Slow Nervous fever," "Common Continued fever," Entero-Mesentric fever," "Intestinal fever," "Pythogimic fever," and "Cess-Pool fever." It was called by some "Gastro-bilious fever," and "Muco-entiritio." It was not until Marchison's Work apeared, was it given the name "Typhoid."

While it is a milk and water disease, i. e., they are the causative factors; yet the late Dr. Austin Flint, wrote that "under ordinary circumstances, it is not diffused by contagion, facts appear to show the spontaneous generation of the causative agent in the great majority of cases. The early authors and observers attributed typhoid fever to effluvia from stagnant water, and malarial marshes; and didn't attach much importance to the drinking of water as the means of carrying the germs (baccili) into the system. Regarding it as a marsh, atmospheric cause, it can readily be seen why they called it "Continual fever" and "Autumal fever." My early observation was that marshes produced bilious, remittent, intermittent, and ague and fever. Anything but idiopathic typhoid was rare. The malarial fever of spring and fall were the rule, and were frequently epidemic. When we had plenty of intermittent and remittent fever, we had no typhoid.

Those old-time, manageable fevers are gone, and mild, and grave typhoids have taken the field.

(To be continued.)

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The subject of sterilization of criminals of a certain kind and of a certain class of degenerates is still being agitated and is advocated by most all of our most scientific men of the medical profession. I fully believe that such will soon be a law in all civilized countries in the world and it will no doubt be of great benefit to the entire human race.

J. A. Burnett, M. D.

ELECTRO THEROPEUTICS

By WILLIAM R. D. BLACKWOOD, M. D., Philadelphia, Pa.

Each month for the past two years, I have given in condensed, (and possibly feeble) manner, some points on the use of electricity in medicine and surgery, based on my more than fifty years' study, and aside from my deceased friend, Dr. Garratt of Boston, Mass., I was the first in this continent to write upon the subject—really among the first elsewhere, excepting so far as I know, Duchenne, of Paris.

All that I have urged in favor of electricity has come true, and my wildest expectations have been so far surpassed—electricity being our dominating agent for ever use in the conduct of the world's operation. Its exploitation in the long ago was a small thing, nowadays the matter of small things has become a mighty power in all that concerns our life work. A profound Greek scholar once expressed his regret that he had not devoted his life to the study exclusively of the genetive. Now comes a comparatively young and unknown German student who intends devoting his future work to the study of the Electron. Once we had no specialization, now we try to get our beginners in science and art to confine their life work to some one thing—make them experts. We never yet saw an electron,—but it is there beyond question. Molecules are known to consist of atoms combined in few or greater numbers, but no one has ever seen a molecule but they are there all the same. The microscope has not yet attained its full things as compared with what we shall hereafter behold. But, although we have not yet seen an atom, we will get there in due time, no doubt at all. And, notwithstanding our lack of seeing in this direction we have come to know that the atom is not the ultimate, the last word in matter, it consists of myriads of tons of negatively charged corpuscles rotating around a common center with increditable speed in the "ether." The Roentgen ray, and emanations from radium exemplify this. We don't know what the "X" ray is, it is not electricity, it is not light; sometime we will get to the bottom of ths conundrum. The difference between the negatively charged ions and the ether is the electricity, but how or whence it came we don't yet know, but we will. Sir Oliver Lodge, the greatest living physicist, likens the relation of ions to ether as is the relation of knots to strings—all knots are string, but all strings are not knots. He thinks it would take 250,000,000,000 ions to reach an inch. When we find out what the ether is we shall have the keynote to the physical universe. We would be blind without etheric waves, to receive sight impressions the wave frequency must be up to 400,000,000,000 per second, but not over 750,000,000,000. It is a good thing, therefore, that someone will get after the ultimate, if we ever do get to it, I guess we will. The small things have now become the greater things. When I was a boy, (no reflection on Pinafore) some of my father's friends told him to put me in Kirkbrid's, our tony asylum for those who had a shingle loose on their topnot, but I am still at the old stand, solid and well. Edison once said that medical work in the near future would be confined to surgery and electricity alone. I agree with him in that—it may be sometime. Quacks long ago said: "Electricity is life." I did not agree with them then, but now I do. I hold that my superb physical condition is due largely to my constant work with some form of electricity. I have been charged with it daily for fifty years, purposely or accidentally, sometimes a gentle touch, but several times a "knockout." Today I can work alongside of men thirty or forty years my juniors, and tire them out bodily or mentally in many ways. We don't yet know what electricity is,

beyond this—it is an expressed form of energy or force, correllated and interchangeable, viz:—light or darkness, heat or cold, motion or stillness. Unharnessed in action it is irresistible and we lie inert and helpless at its mercy: controlled it may be manipulated by the tiny finger of the new-born infant. What is it? Maybe it is God! Without beginning it ESTO PERPETUA!

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MORE HINTS FOR THE NOVICE

W, STUART LEECH, M. D., Portland, Oregon

(Continued from Page 102 April Recorder)

"To truth's house there is a single door, which is experience."

I will never forget my first case of confinement; I was in trembling fear lest I would make a failure with the case and have to call in assistance. It was not the assistance I was loath to seek, but the fear was that I would be obliged to seek an assistant and have him find that I was ignorant on some important, or fundamental point, or what might prove worse, have the expected mother or attendant see a display of ignorance. Promptly answering the summons I reached the bedside and found a primipara lying on a bed in the obstetrical ward, of a small hospital, with the nurse near by. The girl was small, healthy, pretty, aged 13, and now making her first, and a difficult attempt to give birth to a bastard. My approach to her was with as much grace and confidence as I knew how to display. While waiting to see if her pains were true or false, I took her by the hand and gently smoother her forearm in order that she may the better become accustomed to my presence, yet, all the while, debating in my mind what step or steps I should next take. Finding the pains regular and very severe the nurse was ordered to prepare an antiseptic wash for my hands, also the girl for an examination. The girl being verdant and inexperienced proved to be very refractory when it came to the digital examination; but soon a severe pain, one of the persuaders, brought her to a compliance. I was careful to lubricate my fingers, not to soil her linen and not to expose her any more than necessary. The first thing to attract my attention was a vaginismus which caused her to squirm in every direction. Passing this objectionable feature and after an examination of fully five minutes I was able to make out a vertex presentation and an os dilated to the extent of an inch in diameter. Pushing all clothing out of the way except her thin wrapper I placed my ear to the abdomen and counted the foetal pulse, and as it was about 120 my seeminly wise prophecy of a boy was realized in the end. I instructed the well trained nurse to look after the patient and I would go to dinner and return in about three hours. During those three hours of torture to both the poor girl and myself I tried to remember everything I had ever read or been told about obstetrics. Not being satisfied with this I hurriedly referred to my books, and did some of the most faithful studying of my career. Those three hours passed like so many minutes. Uttering a mental prayer for the two distressed ones, myself and the patient, throwing my compend into the satchel and studying it while riding on the street car I returned to the hospital like a soldier returning to battle, not knowing but that it was a life and death case. If it turned out to be the latter I desired to be blameless. Patient was reexamined and found to be doing nicely. Now, how was I to employ the time between examinations? This was quickly settled, nature was a good physician and I knew it. Nurse and patient were

given words of encouragement, and taking out my compend I sat down to study up all the possible complication of a vertex presentation as though I was reading a blue black novel, yet, all the while keeping my eyse and ears open to nurse and patient in hopes of learning something I had forgotten or had never heard before. Well did I realize that "Experience is a grind stone; and it is lucky for us if we can get brightened by it and not ground." What a burden would have been lifted, what ectasy of delight, if one of my old professors could have dropped in at that hour. Things began to grow interesting over in the bed. My compend was cast aside and my sterilized hand given to assist in rotation and to protection of the perineum. The girl was restless and wanted to roll on every side and stand on both ends. I finally told her that I would force her to lie on her back, then she said she would prefer lying on the left side. This was good enough; the English mode was equal if not superior to that of the American, especially at that time as the compend said so. A normal crisis arrived, a few whiffs of chloroform, a little more bearing down, and another human being was loudly proclaiming its arrival, but, the umbilical or cord of my hope was not yet severed. I was apprehensive lest I would not treat that cord exactly right. Perhaps I had forgotten, after administering a small dose of ergot to the mother, and to make sure of my next mode of procedure, I told the nurse to prepare the bath and clothing and I would sever the cord in about four minutes. While she was doing this I went to my table for my scissors and in an unconcerned way glanced at the treatment of the umbilicus as laid down by Ashton in the blue book. All ended well and the nurse and young mother thought the physician in attendance was a young experienced accoucherer.

When I am called out on a long drive I frequently take a book with me, and, on the road study up the expected case. The country and village practitioner needs many consultations; his consultant is his library which should include the best known authors of the world. In all difficult cases it is my rule to refer to my library at the earliest opportunity. You can, in this manner, somewhat keep abreast of the times. Don't ignore the little ones.

"It is a good thing to learn caution by the misfortunes of others."

On entering the sick room it will prove an unpardonable breach of good manners to either place your hat or medicine case on the patient's bed; neither is it well to throw your hat or overcoat on the floor. After making the necessary salutations, if your hands are cold (which is frequently the case), place them in hot water before touching the patient. With a little polite, gentle and sympathetic attention you can gain the confidence of your patient. Avoid all undue familiarity; and the already obtained confidence can be retained by a continuation of good manners, by a strict attention to business, and by a show of diligence by anticipating all the wants and needs of the sick person. See that the pillow and bed are arranged in a comfortable manner. Do not get yourself into disfavor by narrating you experience with gruesome cases or by making comparisons, for "Where boasting ends, there dignity begins."

Almost any comparison is odious, but if you see it becoming at any time and deem it absolutely proper to speak of some of your past experience, you will find it to your interest not to mention any names or cite any case that had a fatal termination. Never introduce your patients to each other while in your office. This was one of the secrets of Sir J. Simpson's success.

(To be continued)

One grain of asafoetida once a day given to nursing women will cure babies colic. J. A. Burnett, M. D.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

DISCUSSION OF ARTICLES.

In a recent letter from our Editor, he suggests that the readers of The Recorder should enter more freely into the discussion of the papers appearing in this Journal and I agree cordially with him in this idea. A paper which does not provoke remarks upon the part of the reader loses much of its force and becomes a matter of passing interest, to be read today and forgotten tomorrow, unless it be very much out of the ordinary.

The medical journal, if properly conducted, should be a medium of education, and in many instances should take the place of the county or other society, in that it reaches many who are unable, either through lack of time, distance from the place of meeting, or for other reason, are unable to attend the meetings of the societies to which they may be members. The medical journal, if one of any considerable circulation, comes before the notice of readers all over the country, and in consequence carries more than a local interest and is, as a rule, of broader mind than is even a state society. In conning the list of contributors to The Recorder for the past year, we find that 21 states are represented and that contributions have been forthcoming from North, East, South and West. In this way, the readers of The Recorder have obtained the ideas of the best writers from all over the country and not those of a purely local nature, as is so frequently the case in our medical societies. Many of these articles have been discussed in subsequent issues of The Recorder and in this way more than a passing interest has been evoked through their publication. Many others, of equal worth have seemingly passed by without other than such pasing notice, and one wonders at times if even such slight notice has been given them. Subjects of general interest have been thoroughly discussed, but those of seemingly only individual value to the writer have been seemingly given little, if any, atteintion. While the latter have seemingly been of little interest to other than the writer, if given some attention and study on the part of the reader, he would undoubtedly have found items of interest to himself and which would undoubtedly have offered him subjects for discussion whereby points overlooked by the writer might have been brought to the surface.

Discussions in subsequent issues of the Journals serve to keep ideas fresh in the minds of the readers and to bring about a greater interest in such publications, but not infrequently does it happen that the editor does not find room for such criticisms in the issue of the journal immediately following that in which the original article may have appeared and because of this much of the force of the argument is lost, in that the original article may have been given but passing notice by some of the readers and that subsequent discussions, possibly appearing as late as two or three months thereafter, may likewise lose much of their force because of the fact that the subject matter has lost much of its freshness in the minds of the readers.

In our medical societies the papers are discussed immediately after their reading and when the subject is fresh in the minds of the auditors and here the interest goes on unabated. Such discussions however are not without drawbacks, for unless the one who discusses such papers has been given the opportunity of previous reading and thus allowed to investigate the authorities, his remarks may

be lacking in authenticity to some extent, in that he must depend wholly upon memory and he may vary largely, or to a limited extent, from the writings of such authorities. In the discussions appearing in the journals those entering into them have greater time for the study of the subject and are able to go more into its details and in consequence their remarks are frequently more authentic than are those of an extemporaneous nature, delivered before the societies.

There is a movement on foot among some of the journals which allows of the discussion of articles concurrently with their publication. To bring this about the editors submit galley proofs of such articles to several of their contributors, with request that the subject be discussed, such discussion appearing in conjunction with the original article at the time of the publication of the latter. In this way the criticism accompanies the article at the time of publication and when it is a matter of immediate interest to the readers of the journal, and there is no loss of interest because of lapsed tme.

Such immediate discussion not only makes the journal of greater interest to the readers, but at the same time, I believe, will act as a force to make the offerings of a higher class, as regards both literary and scientific character. Not only should original articles be submitted to the readers for such discussions, but I believe that the editors should submit editorials of general interest to their readers for similar consideration and that the remarks thereon should appear either in connection with such editorials directly, or upon the pages devoted to discussions in the same issue of the journal. During the past year our Editor, at one time, had an editorial discussed in this manner, and such action met with the universal approval of the readers of The Recorder.

Outside of the large centers the medical societies have but a comparatively limited membership, and even the American Medical Association has a membership of less than one-third of the entire profession of the country at large, and of this per centage, but a comparative few of the members attend the meetings of the Association. The same is true of the state and county societies. A journal like The Recorder reaches and is read by an average of 7,000 doctors every month and is undoubtedly of greater force than is the average society, and because of this its articles should be discussed more generally by its readers. We find, however, that the list of contributors is restricted to forty-four for the year just passed, or considerably less than ten per cent of the entire circulation of the journal. This is true of every other journal, whether it be independent, as is The Recorder, or the organ of an association. This should not be so, and it shows a great lack of interest upon the part of the readers to be other than readers. The Recorder undoubtedly offers its columns to all of its readers and I believe that the Editor would prefer an extended discussion of every subject brought forth in the journal. I feel sure that the writer would welcome such discussions, and in addition to the plan of immediate discussion, outlined above, I would suggest that every reader add his mite, for there is no one who has not made some discovery or observation worthy of notice and not infrequently is a reader able to bring forth points overlooked by the writer.

I have discussed the plan of immediate discussion to our Editor and asked that he give this communication such a "course of treatment" at the hands of the readers of the Recorder, in that we may have the opinions of other than one man upon subject. Here is an opportunity for the readers of the Recorder to "get together" and make this publication a medical society of not less than 7,000 members, and one in which ideas may be expressed without fear of other than friendly criticism. Such will be an association in which personal findings of the members will be taken for what they are worth,

and not subject to contradiction coming from any small and select body of men, as is so frequently the case in our rec ognized societies and associations, where all matters of importance are handled by the few, rather than by the majority. Everyone of the 7,000 readers of The Recorder undoubtedly has something of worth to offer, and he should make the offer. In fact, it is the duty of every doctor to make a record of everything out of the ordinary, be it medical, surgical, or whatnot, and to submit such record to the profession at large, as it is through observations of the individual members that progress is made. I would suggest that everyone of the readers of The Recorder, either during the present year or at subsequent periods, contribute something more than his dollar to the upbuiiding, not only of The Recorder, but the profession at large, and that he make such contribution with the knowledge that it will be handed over to other readers for immediate discussion at the time of publication. Such contributions and discussions will serve to bring The Recorder forward as a marked force and will add much to the individual value of every reader. While the immediate discussion of this communication may be limited at the time of publication, I trust that it will bring forth remarks in general from the readers in subsequent issues of The Recorder and I invite the opinions of this sort.

George L. Servoss, M. D.

Fallon, Nevada.

GLYCERIN.

Glycerin does not have a very wide range of usefulness but fills a limited place extremely well. When given internally it acts mildly as an expectorant, it is generally associated with other expectorants and used as a vehicle. Glycerin is used externally for chaffed hands and some skin troubles but it is generally associated with other remedies when used externally. Dr. Petty was the first to point out that some of the salts of quinine were soluble in glycerin and that the local use of the mixture would produce systemic effect of quinine, the same as when quinine was given internally. It is mixed by taking one ounce of quinine bisulphate and adding enough glycerin to make four ounces.

On page 1350, Dec., 1910, American Journal of Clinical Medicine, is an article, "Local Use of Glycerin in Pneumonia" by Dr. A. K. Van Horne. He says: "Just a word as to Dr. J. M. Shaller's treatment of lobar pneumonia published in Clinical Medicine some months ago. In addition to the doctors use of aconitine I should advise the use of glycerin externally to invite the serum of the blood and thus remove congestion. This can be done either by the application of a large plaster of antiphlogistine or a plentiful amount of glycerin may be put on with cotton flannel, the latter to be covered over with cotton batting to absorb the water abstracted from the underlying tissues. With glycerin thus applied I have aborted double pneumonia in a lady patient eighty-three years of age and I feel satisfied that without the glycerin she would have died. She was able to be up about the house in four days."

After reading the above I wrote Dr. Van Horne and found the first that he had heard of glycerin was on the 14th of Jan., 1853, when Prof. Hopkins of the medical department of Missouri University was lecturing on water. He showed the class by an experiment what affinity glycerin had for water by showing them that water would be absorbed through leather by glycerin as though it was cheese cloth. About twelve years ago when Dr. Van Horne heard of antiphlogistine he knew it was a powder mostly wet with glycerin. He tried it and found it give good results, then thought of the experiment made by Prof. Hopkins and attributed the good effect to glycerin and tried it alone and found

it efficient. Dr. Van Horn uses glycerin for congestion anywhere. When sneezing and taking cold, he applied it in the nostrils and rubs it over the nose and molar bones across the eyebrows. A mixture of glycerin and guaiacol used locally is a good antipyratic and analgesic but the dose of guaiacol must be regulated to prevent poisoning. It can b eused on rheumatic joints. There are also various other uses for glycerin.

J. A. Burnett, M. D.

Gans, Oklahoma.

♣ ♣ ♣

WON'T STAND FOR IT.

There are two things the public won't stand for, and they are a bibulous doctor and a bibulous druggist. In 1878 the physicians of this city organized an "Academy of Medicine," and the writer was the secretary. It was composed of twelve members, and today there are but two survivors, viz: Dr. F. A. Seymour, now of Los Angeles, Cal., and the undersigned. It is a lamentable fact that of the twelve, five went to premature graves from indulgence in alcoholic liquors as a beverage. They not only went to premature graves, but long before that they gradually lost business and prestige.

In the winter of 1871 I visited an aunt, uncle and a sugar planter who married my cousin, and the planter urged me to locate there. It was near Plaquamaine, La. He informed me that they were suffering for a sober doctor. He said there were only dram drinking doctors and priests in the parish.

The part played by intoxicants from even physiological processes, has attracted wide attention as being a causative factor in mental diseases. If poisons are found in the body by normal chemical changes, what would be expected if added to these natural processes, should be added intoxicating liquors? Of course, the amount of such unnecessary poison, would add increased work of the organs in elimination and such increase of active non-assimilative liquids, must inevitably eventuate, sooner or later in organic disease.

"Wine is a mocker; and strong drink is raging; and he that is deceived thereby, is not wise." Strong drink robs a man of his money, his respectability, his health, and his life.

It is a sad fact, that too many doctors indulge in intoxicating liquors. The young doctors are subjected to great temptation to drink, because the Germans are wine and beer drinkers, and they think its all right. They seem to know how to use it, but they offer it to young doctors, and in order not to appear uncivil and thinking that joining them in their wine and beer drinking, they will ingratiate themselves in their good graces, they indulge and in time a habit is formed.

I have always declined, and have been able, by tact, to do so without offending. Even those who sell and drink liquors, don't think much of a drinking doctor.

D. L. Field, M. D.

Jeffersonville, Ind.

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HYDROGEN PEROXIDE.

In an article on "Peroxide of Hydrogen Injections in Membranous Croup" by Dr. Geo. H. Chandler, June, 1906, Wisconsin Medical Recorder, he has the following to say: "Peroxide of hydrogen mixed with glycerin will if injected slowly into the cellular tissue immediately over the thyroid afford prompt relief in cases of croup from suffocation from the presence of membrane."

On page 261, August, 1906, Wisconsin Medical Recorder, Dr. A. T.Newman reports good results treating diphtheria with Dr. Chandler's method. Recently I wrote and asked a few physicians if it would be safe to use hydrogen peroxide

hypodermically and I received the following.

Dr. H. A. Hare the well known author and professor of materia medica and therapeutics in Jefferson Medical College said:

"In reply let me say that I do not know of hydrogen peroxide being used hypodermically and cannot conceive of any reason why it should be so used but I can see that it might cause great trouble if so employed."

Dr. T. Sollmann, the well known author and professor of materia medica and therapeutics, Western Reserve University said:

"I have never heard of hypodermic use of H_2O_2 and should think that it would involve danger of gas embolism, laceration and sloughing."

Dr. Oliver T. Osborne, a well known author and professor of materia medica and therapeutics, Yale University, said:

"Your letter concerning hydrogen peroxide received. It would not be advisable to use solutions of hydrogen peroxide subcutaneously on account of the gas that would be produced dissecting up the tissues."

Dr. Bernard Fantus, a well known author and professor of materia medica in University of Illinois, said:

"In response to your inquiry would say that hydrogen peroxide is unsuitable for hypodermic injection owing to liberation of oxygen occurring on contact with blood or lymph. Hypodermic injections would produce subcutaneous emphysema. Intravenous injections would be dangerous owing to production of gas embolism."

The following prescription is used in pneumonia when the sputum has the appearanc of pus:

℞ Ammonium chloride.....ʒ ij
Hydrogen peroxide .....ʒ iv
Fld. ext. ipecac.....gtt. xv
Aqua q. s. ad.....℥iv

Sig. Dose one teaspoonful every two hours.

Inhalations of boiling hydrogen peroxide for five minutes at a setting repeated four or five times is recommended to abort colds.

Hydrogen peroxide has been used in washing out the stomach in various stomach troubles.

Dr. D. R. Emmons, of North Lewisbury, Ohio, tried a proprietary remedy called ozonized syrup of tolu in a case of whooping cough and noted improvement from the first dose and it acted as a specific in this case. Since then he has used it in other cases with the same results.

After this he concluded that ozonized syrup of tolu was simply the syrup of tolu with peroxide of hydrogen so he gave a mixture of these two remedies but he did not get quite such good results but better than he had ever got prior to the use of ozonized syrup of tolu.

Dr. Emmons formula was:

℞ Hydrogen peroxide .....ʒij
Syrup tolu .....℥jss
Aqua .....ʒiv

M. Sig. Dose 10 drops to a teaspoonful according to age every half hour for two or three doses, then every two hours for six or eight more doses then getting further between doses as they improve.

J. A. Burnett, M. D.

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There is a vast amount of literature being scattered to all parts of the U. S. that the world would be far better off if it had never been published. I refer to such literature as anti-vaccination written by people that do not know the first principles of the subject and to the various quack journals that are published for the purpose of making the people their own doctors and creating prejudice against the medical profession and various other similar anti-medical quack literature as the christian science, etc.

J. A. Burnett, M. D.

RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

STOKING WITH CLINKERS.

Under this title a writer refers to the kind of feeding that the majority of misguided persons inflict upon their long-suffering bodies, pointing out that the great bulk of the foodstuffs that they shovel into their digestive furnaces are nothing but clinkers to begin with and not only do not help to heat the boiler or drive the engine, but actually clog the flues and the ashpit from the moment they go in.

The Medical Standard applies the same simile to medical education in general. "Honestly now," it says, "is not much of the technical stuff with which we load our minds and particularly that which we cram into the students of our medical colleges, in the nature of clinkers, useless to make the machine go and calculated to clog the flues? Don't we use up a lot of valuable time and space with burdensome detail which could better be given to the grounding in general principles and the personal observation of their clinical outworking, leaving the details to take care of themselves? It is useless to expect to make a man a doctor in four school years. The best that can be done—and this is the best—is to put his furnace in such running order that it can take on any kind of fuel and utilize it to advantage. And the wisdom of the physician after he has left school is to see to it that he does not take on clinkers."

To all of which we say most heartily yea and amen! The same criticism might well be extended to our entire system of education, from the primary grades through the high schools into college and universities. There is too much forcing and crowding in of inessential and unprofitable detail which has no real value, either as actual knowledge nor for mental training. The grounding in fundamentals which constitutes the superiority of education given in Germany or England is painfully absent in all grades of American education.

TREATMENT OF SYPHILIS.

The great importance of syphilis, considered, both medically and socially, the the general use—shall we say abuse?—of Ehrlich's arsenobenzol must be our excuse for referring again to the matter. In the Journ. A. M. A. for March 4th, Caffrey reports that he had equally as good results with sodium cacodylate as with salvarsan. Fox and Trimble state that while the results from injections of salvarsan were in some respects encouraging, in others they were somewhat disappointing. While frequently the lesions disappear with startling rapidity and in several cases salvarsan succeeded, where mercury had failed, relapses were quite frequent and altogether the authors do not consider the results specially brilliant as compared with other methods of treatment.

Marshall, in an article in the Lancet, arrives at similar conservative conclusions. He believes that no drug can replace mercury in the treatment of syphilis and that the effect of salvarsan is not constant and often only temporary. There is no proof that an abortive cure of syphilis can be effected by it. At a meeting of the Academy of Medicine of Paris, which has maintained an attitude of reserve from the first, Ehlers of Copenhagen described a case in which a patient, 40 years of age, syphilitic for eleven years and a general paralytic, was treated with 606 and died five days afterwards from paralysis of the heart, undoubtedly of arsenical poisoning. Having treated seven syphilitics, who had

been refractory to mercury, with 606 he kept them under observation after the injection and was able to see that the amelioration, often miraculous, did not last more than seven to fifteen days in severe cases and a month in others. In all seven patients recurrence occurred, for the most part as serious as before the treatment. Ehlers is in favor of not using salvarsan until we have more knowledge of its action. At the same meeting Hallofeans advanced hectine as a remedy for the abortive and curative treatment of syphilis. It is to be used by subcutaneous injection in the edge or the neighborhood of the primary lesion, the customary dose being 20 centigrams dissolved in 1 cm. of sterilized water. The injections should be made daily for about 30 days. The effect is claimed to be uniform. Syphilis attacked in the first thirty days of its evolution is cured definitely and the result is constant. The Academy appointed a committee of men of high standing and authority to investigate this claim. We will have to await the report. But what is hectine?

In the meantime most men will agree with Ehlers' conclusions and be conservative in the use of salvarsan.

LEGISLATIVE RECORD.

The Minnesota State legislature which closed its session recently is freely criticized throughout the state as the worst in our history. That means a great deal. Time and money were wasted in personal wrangles, sectional fights and consequently a great many of the most important measures were lost by default. Every attempt to strengthen the people's power and right through referendum, initiative, recall, enlarged primaries, compulsary compensation, etc., was defeated through the united opposition of the interests. Of the various medical bills only one became a law, the one putting an annual license fee of $300 on itinerant physicians. The senator who got this through, a physician from a small town, boasted to the writer that this was the only bill ever gotten through in the interest of the country doctor. Incidentally the bill is also in the interest of the people, its author evidently meant it just for protection of his own class.

The homeopaths made a vigorous attempt to force the regents of the state university to re-establish a separate homeopathic school at the university. Two years ago this was discontinued, its attendance having dwindled down to three students, and in its place two full chairs for the teaching of homeopathic practice and materia medica added to the regular faculty. The homeopaths had an up-hill and losing fight, for to the people their demand presented itself as one for unnecessary expenditure of money and nearly the entire press of the state took the same view as the regents.

The chiropractics this time united with other under the name of nauropaths, tried again to obtain a special examining and licensing board of their own, but their bill did not get out of the committee.

They are becoming quite numerous throughout the state and many of them are said to have a lucrative business. They seem to be entirely outside the pale of the law and free from interference by the authorities, owning to the lack of a sufficiently broad interpretation of the term "practice of medicine."

RAILWAY SANITATION.

An address by Dr. S. A. Knopf, the noted tuberculosis expert and sanitarian at the N. Y. Academy of Medicine touches one of our pet topics on which we have written in the Rundschau and elsewhere. He speaks of the same evils against which we have raised our voice: the common drinking cup and towels; the insanitary condition of closets and urinals; and the possibility of dissemination of disease through them; overheating and lack of ventilation in coaches; the danger of infection lurking in upholstery and bedding; the annoyance and injurious effect of smoke and cinders from which the traveler in the Pullman is protected by win-

dow screens, but to which the common herd is constantly subjected; and the pernicious raising of dust in the coaches by the brushes of officious negro porters, etc. There is really not much use in talking about these things before physicians who fully realize their importance. It is the general public and the press of the country to whom they should be preached in order to get results. The press is not eager to take them up.

Not long ago the writer having witnessed a particularly atrocious infraction of public hygiene on a railroad train, sent a communication on the subject to one of the Minneapolis papers. It never saw the light. The editor probably was afraid that the railroads might take offense. Throughout this state one can see notices by the state board of health posted in trains, hotels, and other public places, warning against the use of the common drinking cup. So far, so good, and many people provide themselves with individual cups. But no attention is being paid to the character of the ice placed into the drinking water and the filthy way in which one can see it handled daily on trains and railway stations.

We have spoken of the matter repeatedly and do not want to thrash it over again. But it is close to our heart, and we wish every one of our readers would make it one of his own and use every effort to bring about proper recognition of it by the people. The people's indignation once aroused the evils will be remedied promptly.

VARIOUS TOPICS.

Aconite enhances the action of cimicifuga.

Oil of wormwood is a deep penetrating oil. It is a good addition to various liniments when deep penetrating action is desired. It would no doubt be a valuable addition to the mixture of parafine oil and capsicum and possible some soluble preparation of iodine would still enhance its value.

The seven topics of th day are: (1) pellagra; (2) "606"; (3) hookworm; (4) radium therapy; (5) arteriosclerosis; (6) vaccine therapy and (7) infantile paralysis. A physician should have a small complete book on each of these subjects.

I cannot understand why some states can have a law that allows women to practice obstetrics. Would this not be class legislation if men were not also allowed to practice it.

When all the cults and side lines get state boards there is not going to be much left for the regular reputable physician to do. The midwives will do all the obstetrical practice, the opticians will fit all glasses and do all the eye practice, the magnetic healers will do all the mental practice, the osteopaths will do all the orthopedic and mechano-therapy practice, the chiropractors will give all the spinal treatment, the hydropaths will give all the baths and the corn doctor will treat all conditions of the feet. The druggist will be the only one allowed to handle drugs. The county health physician will have charge of all contagious and infectious diseases. So I suppose it is going to socialism at last.

The editor of the Lancet-Clinic says: 'Tis the power of careful observation that makes the successful diagnostician. This trite remark needs reiteration at all times. The close scrutiny of small details, the careful weighing of evidence, the grasping the significance of even inconsequential facts—these things maketh a great diagnostician.

THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

THE TREATMENT OF SYPHILIS WITH SALVARSAN. By Dr. Wilhelm Wechselmann, of Berlin. Medical Director of the Skin and Venereal Disease Section, Rudolph Virchow Hospital, Berlin. With an Introduction by Prof. Dr. Paul Ehrlich, of Frankfort-on-Main, Director of the Royal Institute for Experimental Therapeutics, Frankfort. Only Authorized Translation by Dr. A. L. Wolbarst, New York, Professor of Genito-Urinary Diseases, New York School of Clinical Medicine, Genito-Urinary Surgeon to People's Hospital, Central Islip State Hospital, etc. Illustrated with 15 Textual figures and 16 Colored Plates. Large Quarto. Pages 175. Price, Cloth $5. Rebman Co., 1123 Broadway, New York.

The general interest in the treatment of syphilis by salvarsan and the importance of the subject make this one of the most important new books before the profession. When Prof. Ehrlich perfected salvarsan he invited Dr. Wechselmann to use the new remedy in his extensive clinic at the Rudolph Virchow Hospital in Berlin. After treating fourteen hundred cases with the new remedy and studying its effects Dr. Wechselmann prepared this book. The work gives full instruction for using the remedy with indications and contra-indications. One difficulty in judging of the merits of salvarsan is that many physicians have used it without thoroughly understanding how it should be used. Proper cases should be selected for treatment and the technic carefully attended to.

The new remedy is known variously as "606," "Ehrlich-Hata," "Ehrlich's Remedy," "Arsenobenzol," etc., but the name salvarsan is used throughout the book. A very complete bibliography is appended to the work. The colored plates are a valuable feature of the book. Every physician who intends to use salvarsan should read this book, as it is a working guide. In fact no physician should use the remedy without reading the work. The physician who wishes to be correctly informed on the subject needs the volume.

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PLASTER OF PARIS AND HOW TO USE IT. By Martin W. Ware, M. D., N. Y., Adjunct Attending Physican, Mount Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor of Surgery in the New York Post Graduate School. Second edition revised and enlarged. Price, Cloth $1.25. De Luxe Leather, $2.50. Surgery Publishing Co., New York.

The exhaustion of the first edition and the persistent demand for this helpful book were the incentives for this second edition, which has been completely rewritten and enlarged and thus its scope of usefulness has been greatly extended. Complete new drawings and marginal side notes in red embellish the book and ninety illustrations are used to more clearly put up to the eye of the reader the intent of its subject matter.

Such information as History, Materials, Manufacture of Bandages, Storage, Bandages of Commerce, Calot Plaster Bandages, The Immediate Preparation of Bandages, Application and Precaution, Removal of Bandages, etc., are all given under the contents of The Plaster of Paris Bandages. Then follows such chapters as Application of the Plaster of Paris Bandage to Individual Fracture, Fractures of the Upper Extremity, Fractures of the Lower Extremity, Moulded Plaster of Paris splints, Plaster of Paris

in Orthopedic Surgery, etc., and all presented in such a comprehensive manner as to make this book of particular service to every doctor. The mechanical features of the book are decidedly striking.

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THE EXPERIMENTAL CHEMOTHERAPY OF SPIRILLOSES. Syphilis, Relapsing Fever, Spirillosis of Fowls, Frambesia. By Paul Ehrlich and S. Hata, with Contributions by H. J. Nichols, New York; J. Iversen, St. Petersburg; Bietter, Cairo; and Dreyer, Cairo. Translated by A. Newbold, and Revised by Robt. W. Felkin, M. D., F. R. S. E. Illustrated with 5 Plates. Pages 181. Price, Cloth, $4.00. Rebman Co., 1123 Broadway, New York.

This work is a comparison volume to Wechselmann's "The Teatment of Syphilis with Salvarsan." The volume by Ehrlich and Hata gives a full and authoritative account of the experimental investigations which have led up to the production of salvarsan. Prof. Ehrlich is the leader in experimental chemotherapy and anything he writes on the subject is worthy of careful study. The book shows the amount of painstaking labor expended in the production of salvarsan. The great possibilities of salvarsan when properly administered make this book a valuable contribution to medical literature.

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INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia with the Collaboration of Wm. Osler, M. D., John M. Musser, M. D., A. McPhedran, M. D., Frank Billings, M. D., Charles H. Mayo, M. D., Thomas H. Rotch, M. D., John G. Clark, M. D., James J. Welsh, M. D., J. W. Ballantyne, M. D., John Harold, M. D., and Richard Krety, M. D., with Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume IV., Twenty-first Series, 1911. Pages 300. Illustratel. Cloth, Price $2.00. J. B. Lippincott Co., Philalelphia.

This is the annual year-book number of International Clinics, containing a summary of a year's progress. Dr. A. A. Stevens of Philadelphia reports a year's progress in therapeutics. Doctors John Musser and Julius Tuttle of Philadelphia present the new advances in medicine. A good summary of progress in Surgery is given by Dr. J. C. Bloodgood of Philadelphia. The lectures and articles in the volume present the latest on subjects of special interest at the present time. Each volume of International Clinics contains a wealth of valuable new information. Some of the article in this volume are:

"The Spread of Pellagra Throughout the United States," by George A. Zeller, M. D.; "A Further Contribution to the Treatment of Syphilis with Ehrlich's Dioxydiamido-Arsenobenzol," by Sanitatsrath W. Wechselmann; "The Treatment of Typhoid Fever," by Thomas F. Reilly, M. S., M. D.; "The Development of the Sphygmomanometer and the Method of Its Use," by Francis A. Faught, M. D.; "The Value of Blood-Pressure Estimation in Internal Medicine," by Henry D. Jump, M. D.; "Some Recent Clinical Investigations of Poliomyelitis," by Charles K. Mills, M. D.; "Anterior Poliomyelitis," by Joseph S. Neff, A. M., M. D.; "Syphilis of the Circulatory System," by John H. Black-

burn, M. D.; "Acquired Syphilis: Clinical History," by T. W. Stone, M. D.; "The Occurrence of Icterus in Tuberculosis," by Alfred Scott Warthin, Ph. D., M. D.; "Double Aortic Murmur—Aneurism of the Innominate Artery," by Joseph B. Marvin, B. S., M. D., LLl D.; "Modern Infant Feeding," by Maurice Ostheimer, M. D.; "The Open or Surgical Treatment of Fractures," by C. P. Thomas, M. D.; "Ulceration of the Male Bladder," by Wiliam Cullen Bryant, M. D.; "Symmetrical Gangrene (Raynaud's Disease) of Both Feet," by Carl Beck, M. D.; "A Case of Duodenal Stenosis," by Charles Green Cumston, M. D.; "Refraction by the General Practitioner," by Wiliam Zentmayer, M. D.; "Recent Advances in Our Knowledge of Nutrition," by Winfield S. Hall, Ph. D., M. D.; "An Incinerator for Anatomical Refuse," by George A. Pierson, M. D.; "The Cellular Basis of the Determination of Sex," by Thomas H. Montgomery, Jr.; "Mosquito Work in the Canal Zone," by J. A. Le Prince, C. E., A. M.

The volume is freely illustrated with plates, half-tone and colored.

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1000 Surgical Suggestions. By Walter M. Brickner, B. S. M. D., Adjunct Surgeon Mount Sinai Hospital, Editor in chief American Journal of Surgery, with the collaboration of James P. Warbasse, M. D., Harold Hays, M. D., Eli Moschcowitz, M. D. and Harold Neuhof, M. D. 225 Pages. Cloth Bound Semi-de Luxe $1.00. Full de Luxe, Leather $2.25. Surgery Publishing Company, 92 William Street, New York.

This is one of the biggest little books ever presented to the profession. In its 225 pages are found a collection of 1000 epigrammatic, succint, virile and instructive hints based upon actual experience and everyone a lesson in itself.

The suggestions are so arranged and indexed that all subjects covered can be immediately referred to and the particular hint upon any particular subject immediately found. It bristles with pointed and useful suggestions which in many cases might just turn the scale from failure to success. Its mechanical presentation is a feature worthy of mention. It is square cloth bound stamped in gold, printed upon Indian tint paper with Cheltenham type with special marginal side headings in red. A dollar could not be better invested than in the purchase of this book.

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Practical Dietetics with Reference to Diet in Disease. By Alida Frane-Pattee, Graduate, Department of Household Arts, State Normal School, Framingham, Mass Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City. Sixth Edition Revised and Enlarged. Pages 475. Cloth, Price $1.50. A. F. Pattee, publisher, Mount Vernon, New York.

We have noticed in these columns the successive editions of this book, each of which has been bigger and better than the last. The book has become a well recognized standard authority on dietetics. The volume is based on the experience of many of the best hospitals and leading physicians of this country. The work is now used as a text book in many educational institutions. It presents the principles of nutrition and food preparation, practical application of principles of nutrition, hospital dietaries, diet in diease and diet in special conditions. The numerous recipes in the book are of great value. It is a great convenience to physican and nurse to have such a work as this where instantly a desired recipe or diet can be found. Every physician, as well as every nurse, needs this work for frequent reference.

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J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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VOL. 14 MAY, 1911 No. 5

SIR HENRY IRVING.

By Grace M. Norris, M. D.

An aged Yorkshireman was so fond of Sir Henry Irving's acting that in his will he said that when he died his body was to be buried headless, and the skull was to be cleaned and mounted, suitably inscribed with a silver inscription and handed to the actor, with the request that it always be used for Yorick's skull in the presentation of Hamlet.

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QUACKMAN.

By Grace M. Norris, M. D.

Quackman has put out a shingle proclaiming him "D. O. & M. D. T.," hours from A. M. to late P. M. His office is M. T.

MISCELLANY

CALCIDIN.

Perhaps the remedy most frequently prescribed in the winter months is calcidin or iodized lime. For croup and other diseases that imperil the patient and try the doctor it appears to be the master remedy. Thanks to it croup is not the terror it once was; it has saved countless lives in years past.

Calcidin is also useful in coughs and colds that show a tendency to hang on; as well as for la grippe and bronchitis and kindred diseases, especially when they are of a chronic type. Used as basic medication this agent seems to break down the bars of chronicity, so to speak, and to pave the way for recovery.

As stated before calcidin is iodized lime, yielding 15% of available iodine. It is called by some "calx iodata." It is without doubt better tolerated than any other iodine-containing agent we posses and, therefore, is best suited for prolonged administration. It is a good substitute for the oridnary tincture (an exceedingly variable article as found in the stores) and for the inorganic iodides.

Calcidin comes from the laboratory of the Abbott Alkaloidal Co., Chicago, who offer to send a sample of it, and a booklet about it, to any doctor who is unacquainted with the product.

The number of cough preparations on the market is perlexing—of cough syrups and elixirs and lozenges there seems to be no end. Few of them have any merit to speak of; the average cough syrup is a mawkish, sugar-laden, stomach-distressing mixture. The cough lozenges we usually see are very little more than confections flavored in one way or another.

The Abbott Alkaloidal Company, of Chicago, we note, have lately put out a cough lozenge that does perform its mission. They call it lactucarium compound and it is just as palatable as it is effective. They claim it is the most satisfactory and generally useful prescription for cough that has ever been put together. This, obviously, is a big claim, but it has been verified a number of times.

There is no question that the lozenge is a form of medication which will not soon become obsolete. Like the gurgle it exerts a direct influence upon the tissues with which it comes in contact, but it has the additional advantage of being more convenient in its application.

This new cough lozenge gives good results in practically every kind of cough and should be a valuable ally to the doctor. We have seen, more than once, a very stubborn cough yield to it after other medication proved of no value. One of its features is that an elixir, suitable for immediate use in pediatric practice, may be made with it extemporaneously, by dissolving two to four lozenges in two drachms of glycerin and two drachms of aromatic elixir. Of this twenty drops may be given as often as required.

Now is a good time to study up on these remedies and be ready to use them next fall.

The Abbott Alkaloidal Company will be pleased to send a circular of particulars and a trial package of the lozenges to any doctor who wants to try them before buying or prescribing.

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Gummed labels should be untied as soon as received and kept in a dry place, then they will never stick together. If labels are kept tied tightly in package they will stick together.

THE SUPRARENAL SITUATION.

THE UNITED STATES CIRCUIT COURT UPHOLDS PRODUCT PATENT ON THE NATURAL ACTIVE PRINCIPLE.

When Vulpian, a French chemist in 1856 reported that the suprarenal glands of mammals contained a peculiar substance giving certain color reactions with ferric chloride, iodine, and alkalies, and quickly changing in contact with the air and on exposure to light, little might anyone have expected that fifty-five years later this peculiar substance would be the subject of a product patent.

In 1904 the H. K. Mulford Company placed upon the market Adrin, its brand of Epinephrine, the active principle of the adrenal gland, believing that the pioneer work done by von Furth and Abel justified it in doing so,—and that a product patent on the active principle existing in nature could not possibly be upheld, particularly in view of the fact that its existence had been recognized for fifty years; that nearly all of its chemical reactions and properties were previously known and described; that its chemical nature had been accurately predicted; that its medicinal virtues had been discovered and put into practical use; and that it had been actually isolated in various degrees of purity in the form of a benzoylated derivative and in the form of a zinc and and an iron compound.

The H. K. Mulford Company regarded its product as a substantially different product obtained by a substantially different process, from those specified in the Takamine patent and did not believe that the latter could—if held valid at all—be construed to cover and include the Mulford product.

Moreover: the H. K. Mulford Company, recognizing that the first object of the patent law is to "promote progress in the Sciences and Arts" believed and still believes that the granting of Product Patents on medicinal substances, whether or not they exist pre-formed in nature, are a hindrance to, rather than a means of promoting progress in the practice of medicine, and used their efforts to defeat a product patent which it deemed to be not only contrary to the object and spirit of the patent law but contrary to the best interests of Pharmacologic Practice in the United States.

On April 29, 1911, Judge Hand, in the United States Circuit Court for the Southern District of New York, handed down a decision sustaining certain of the patent claimss of Dr. Takamine and declaring H. K. Mulford Company products to infringe these claims.

The H. K. Mulford Company wishes to call attention to the fact that in defending these suits it has consistently and at great cost endeavored to uphold its antagonistic position toward the product patent for medicinal substances, believing that product patents on all substances used in medicine, work an injustice on the medical and pharmaceutical professions and are inimical to the public good.

The Court having decided that the manufacture of Adrin, the Mulford brand of epinephrine (the active principle of the adrenal glands) conflicts with the product patents granted to Takamine, the H. K. Mulford Company will discontinue its manufacture in the form of solution, tablets and hypodermics, until their appeal is decided in the higher court. Other preparation which have contained the Adrin brand of epinephrine will be prepared with an amount of purified extract of adrenals equivalent to the active principle contained in the glands.

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We have a few copies left of each number of The Recorder for last year. If any of our subscribers lack any copies we shall be glad to supply missing numbers free of extra charge. We desire our subscribers to have a full file of the year's numbers.

The Wisconsin Medical Recorder

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STERILIZATION AND DISINFECTATION BY HEAT AND CHEMICALS

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

Sterilization, or the total destruction of all bacteria contained on or in any body or substance, is best accomplished by heat. It is possible to produce a sterile condition by the use of certain chemicals, such as bichloride of mercury or carbolic acid, if they are sufficiently concentrated and enough time is allowed, but this for various reasons is not always practicable.

The various ways in which heat may be applied for this purpose are the naked flame, boiling water, hot air, or steam, both live and under pressure. Each of these has its own particular advantages and disadvantages.

Sterilization by fire or the naked flame, as for instance that of the Bunsen burner, is certainly the most efficient of all, but can only be applied to small articles, and such as are not oxidizable or combustible. Its use for sterilizing platinum wires, slides, etc. in the laboratory is sufficiently well known. For the destruction of infected articles, such as dressings, it is of course the ideal method.

The application of boiling water has always been made use of for sterilizing instruments, etc., in an emergency or as a routine measure. As the temperature of boiling water is only 100 C. it would seem that boiling articles for a shorter time than one hour would not destroy any spores that may be present. As the object, however, is usually only disinfection and not complete sterilization, a shorter time suffices. It is possible that fifteen minutes' boiling will destroy all bacteria and most spores, except the highly resistant forms, which, with the exception of anthrax and tetanus, are not pathogenic.

Hot air sterilization is much less efficient than either of the others. It seems that the presence of moisture is essential in order that heat should exert its best effects. While a moist temperature of 100 C. will destroy all bacteria and spores in an hour, this is not accomplished by dry heat until a temperature of 150 C. is reached. The principal use of dry or hot air sterilization has been for empty test tubes, dishes and other glassware, in which it was desirable that the articles be obtained in a dry condition, which is not the case in the various steam sterilizers that have heretofore been used in laboratories. A great draw-back to hot air sterilization has always been the fact that the cotton plugs in the test tubes when over-heated would char, and produce a very disagreeable empyreumaic oil, which was difficult to remove from the glass. The high temperature also caused more or less breakage at all times ,especially if the oven was opened before the temperature had fallen, say to 60 C. Considerable delay, therefore, always attended dry sterilization.

For all-around purposes steam has been the most useful sterilizing medium, with the exception that articles so sterilized were not dry when finished, which, of course, in the case of Petri dishes and

other glassware, was a great inconvenience. This has been entirely overcome in some of the newer makes of steam sterilizers.

Steam is applied either as live or flowing steam or under pressure, the latter being by far the most efficient, accomplishing in fifteen or twenty minutes what takes an hour by live steam. As not all culture media, however, can be exposed to steam under pressure without deteriorating, the use of live steam is necessary in some instances. This is particularly the case for gelatine and sugar media, also for milk.

For live steam a number of sterilizers have been devised. Probably the one most used is the so-called Arnold sterilizer, which has a provision for catching the moisture of the condensed steam and returning it to the water chamber. As already stated, an exposure for one hour is necessary to secure complete sterilization. As this is not always practicable, however, both from considerations of time and its effect on the media, the fractional or discontinuous method is used almost exclusively. This consists in exposing the material for fifteen minutes at a time on three consecutive days.

The theory of this method, which experience has proven to be correct, is that the material being sterilized may be supposed to contain a number of bacteria in the vegetative state and a number in the resting or spore state. The application of steam at 100 C. for fifteen minutes undoubtedly kills all vegetative bacteria present but not the spores. During the 24 hours then ensuing, opportunity is given the spores to germinate and become vegetative bacteria, and these are all destroyed by the second sterilization. The third period is a precautionary measure, in case any organisms have escaped the second sterilization.

Steam under a pressure of 10 to 15 lbs. is applied in the various autoclaves, of which a number of patterns are now in use. Complete sterilization is effected by this method in fifteen or twenty minutes. This has largely superseded all other sterilizing processes, and with the few exceptions where it cannot be applied, is ideal for all purposes.

We have lately been using a sterilizer in which steam can be applied, either live or under pressure, or sterilization can be effected by hot air if desired. By a special vacuum arrangement, articles that have been sterilized by steam can be rendered perfectly dry before removal. The apparatus thus takes the place of three former appliances—the Arnold sterilizer, the autoclave and the hot air oven.

As complete sterilization by chemicals is not practicable, their chief use lies in the disinfection of such material where heat, owing to its destructive action, is not usable, principally the disinfection of the operator's hands, the cleansing of wounds, and so on. Where the air and entire contents of a room are to be disinfected there is another important use of chemical disinfectants, also for the destruction and rendering non-infectious of feces or other excretions.

For disinfecting the air of rooms, the former use of sulphur dioxide gas, obtained by burning sulphur, has been almost entirely superseded by the use of formaldehyde, which is cheaper and has one important advantage in that it does not bleach fabrics exposed to it, while sulphur dioxide does.

Formaldehyde gas can be generated in a number of ways, among which may be mentioned the various lamps in which the gas is generated either by vaporization of the liquid formalin, the decomposition of paraform, or the oxidation of methyl alcohol. Simple evaporation by heat is not practicable, as the solid polymer, paraform, forms in large quantities. The various candles in which paraform is mixed with paraffin, charcoal or other combustibles, are very convenient. The method employed

by some health departments of simply saturating sheets with liquid formalin, which are hung up and the solution allowed to evaporate at room temperature, while open to criticism, seems to answer the purpose very well.

It might be mentioned in this connection that unless the room be warm and the atmosphere moist, neither formaldehyde nor sulphur dioxide will produce the best results.

For the destruction of protozoa, and incidentally insects, sulphur dioxide is more efficient than formaldehyde. It certainly has shown itself so in the case of malaria and yellow fever, the first of which is undoubtedly, and the last most probably, due to animal parasites.

The use of chlorine gas for this purpose, while most destructive to bacteria, has been abandoned on account of its extremely irritating properties.

As to the disinfectants which are used in solution, mercuric chloride is probably more used than any other. There is some dispute as to whether its affinity for albumin detracts from its efficiency or not. By combining with hydrochloric acid or sodium chloride, in the proportion of 1 part of mercuric chloride to 5 of the other, this tendency is largely obviated. In the strengths commonly used, that is, from 1-5000 to 1-1000 it certainly seems to do the work that is claimed for it, and will probably always be the standard disinfectant.

Carbolic acid, the next most important disinfectant, is used in strengths from 1 to 5%. It has the same tendency to combine with albumins as mercuric chloride, and this can be prevented by combining with an equal proportion of hydrocloric acid.

The other disinfectants used to any extent are silver nitrate, formalin, hydrogen peroxid, potassium permanganate, etc. Each of these has some important drawback. Silver nitrate is converted too readily into the harmless chloride by body fluids and is expensive, formalin in liquid form is weak, being best employed as a gas; hydrogen peroxid is valuable for oxidizing purulent secretions, but rapidly deteriorates; potassium permanganate is destroyed too readily by inert organic material.

A disinfectant of considerable value, especially for the dejecta of typhoid or cholera, is ordinary unslaked lime. Milk of lime, or common whitewash, which contains 20% of calcium hydroxide, mixed with the dejecta in the proportion of 1 to 4 will render them practically sterile in an hour. It does not, however, destroy spores, and requires three applications to kill the bacillus tuberculosis. This may be due to the fatty material in this bacillus, and the addition of a small proportion of caustic alkali might remedy its inefficiency in this respect by dissolving the fat.

For this reason and the fact that it contains more or less albumin, sputum cannot be successfully disinfected by either mercuric chloride, carbolic acid or milk of lime. A 4% solution of calcium hypochlorite is useful. A mixture of carbolic and hydrochloric acids, of each 5%, has been used successfully in combination. The best way to deal with sputum is to use the collapsible paper cups which are afterwards burned.

The destruction by fire of any contaminated material which is not of a valuable nature is the only way to absolutely prevent infection therefrom, unless it is of such a nature that it can be subjected to heat sterilization.

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MEDICAL FADS

CHARLES J. DRUECK, M. D., 438 East Forty-Sixth Street, Chicago, Ill.

The other day I met a confrere complaining about his practice being slow and his not having anything to do. Another MaCauber thought I. But did you ever notice that the man with the poor practice is usually out of joint with his work. Either he has made a poor selection of his location or else is poorly prepared for the work. Now, brother I am not finding fault with your medical school education but I believe you will grant me: 1. That you didn't know all of real medicine when you graduated. 2. That you have forgotten much of the book knowledge that you so laboriously ground in at college. 3. Many new things have been developed since your shingle has been creaking in the wind and, 4. Last but not least unless you have been very wary the manufacturing chemist's agent with his smoothly running "spiel" has inveigled you into forgetting your materia medica and you listen to his therapeutics and prescribe his dope without even watching to see whether it makes good or not.

Here is the pith of my argument. Regardless of the thoroughness of your early medical education you have got to do just so much hard grinding to keep posted. Medicine is not a definite art but rather a very unsettled science wherein every day innovations are being brought out. many of which will soon be discarded and a few. very few, will stick by to help you. But all of them must be investigated and sifted out by you. You may not be a leader but you must be a close follower. You must discard the inaccuracies and errors of what was taught you a few years ago and you must learn with the class students of today. In other words, you must be constantly relearning every subject and branch of the whole profession. To do this it isn't necessary that you should brush elbows with the the most brilliant clinicians of the world. It is the middle class fellow who does the real work.

How do you spend your leisure time? Medical meetings and medical journals are very valuable but they don't compare with a careful study of a text book. Works on medicine are soon antiquated and those ten years old are obsolete. Any books of that age must be cleared from your library. The subjects of diagnosis and materia medica are probably the most necessary and also the most easily forgotten with the average practitioner. It is also because we have neglected these subjects that we spend our time on the fads and fakes instead of anchoring to the good old tried drugs that have well known actions and upon a careful sane surgery.

Speaking of fads, today its all serums and vaccines. A few months ago it was opsonins, before that it was lights all colors and degrees of intensity, before that it was various pathics and so on, always grabbing some new idea that was easy and that hoped to be a panacea and avoided the hard work of digging out the unknown. Now Doctor, when we use these things have we any idea of their therapeutics? Oh no! We just use it emperically. We hit at this, dab at that and deceive ourselves as much as we do our patient. Finally the patient gets tired and deserts and the doctor complains about the farce of medicine and thinks that all of the virtue is in psychotherapy. Presently along comes a competitor who does know anatomy, materia medica and diagnosis and he cleans up several of those old neurotics (as we call them) and we wonder why folks take such a shine to the M. D. A diagnosis of neuresthenia is a confession of ignorance. Dust off your anatomy, materia medica and diagnosis. If they are old, sell them to the old paper man and

buy new ones. Study the new ones diligently during your spare time for the next ten days and you will certainly find a case that has baffled your neighbor but whom you will cure. These three books are worth more than all of the rest of your library.

Here is a case in point. Mrs. H. age 24 yrs., bore a child when she was 17 years old. She is an artisan's wife and does her own housework. She lost weight for about three years falling from 133 to 97 pounds, appetite poor, bowels constipated. Later she became hysterical and was in a private sanitarium for several months for mild insanity. She had been under several physicians when she came to me. I made a special appointment and saw her when I could take time to thoroughly examine her. I found a number of things wrong and among them a uterus with a widely lacerated cervix and a retroverted fundus that was so tender that she could not permit a digital examination. A rectal examination was also extremely painful but finally I determined that the fundus practically blocked the rectum. The left ovary was prolapsed but both ovary and uterus were movable. I operated upon her, repaired the cervix, and suspended the uterus thus relieving the rectum and sacral nerves of the pressure. This made a different woman of her. The constipation relieved, the appetite returned. Her nervous trouble disappeared and her weight came back to its normal. Life is now a pleasure instead of a burden.

Such a case is quite occasional. Errors of omission are much more common than those of commission among us doctors. Remember that old rule of cards. "When in doubt play trumps." When you have a perplexing case don't try some new treatment with which you are unfamiliar but rather turn to your tried and true texts and learn your faults in diagnosis or therapeutics.

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THE YOUNG DOCTOR

By GEORGE L. SERVOSS, M. D., Fallon, Nevada

The first of every July sees a number of young doctors, both men and women, ushered into the medical world as full fledged practitioners. These young people have given from four to six years of their youth to the study of the science of their accepted calling and come into their particular world presumably in a condition to cope with every condition coming under their notice. But is the latter a fact? Are they prepared to handle every such condition, and in such a manner as to bring satisfaction to both themselves and patients?

While in school the medical student is prone to consider the patients coming under his care as so much material from which to gain information and unless he be careful in his after life as an individual practitioner, his patients will continue to be so much material from which to gain further information. If he continues such a policy he will not meet with unbounded success, as he will undoubtedly become cold blooded in his conduct of cases and will consider the condition under observation to a much greater extent than he does the patient.

During his course of sudy most of his work has been devoted to the conning of books and listening to didactic lectures and although he may have been brought in contact with different pathologic conditions known as certain specific diseases, and from time to time been allowed to suggest treatment, he has not, at any time, been thrown en-

tirely upon his own resources, having, a all times, a teacher at his elbow to offer suggestions. Nor has he been allowed to carry a case through from inception to termination upon his own responsibility. He does not have the opportunity to note all of the different phases arising from time to time during the progression of the condition under observation, and consequently is not aware of the fact, excepting from hearsay, as a rule, that there is no classic treatment for any named disease and that conditions must be met as they arise and treated accordingly. During his years of tutelage he has been given a few set formulas, as a rule, for application in different disorders, and these without the taking into consideration the fact that no disease presents absolutely classic conditions, case for case.

The young man in medicine will find that he has much to learn and likewise much to unlearn prior to becoming successful in his calling. He will first learn that, in the majority of instances, it is the patient and not the disease that requires treament and that if he ignores the former, he will be unsuccessful in handling the latter. He will find many little irregularities, not mentioned by either his books or teachers, and that these will have to be considered at all times in the institution of treatment.

As time goes on and the young man begets confidence in himself, it will be to find that he is establishing ideas of his own and that his individual experience is bearing him out in the following of such ideas. He will find that he is meeting with greater success, year for year and that his understanding of his patients is increasing.

It may be that many of the young men turned out to practice will have been taught that drugs are practically worthless in the treatment of disease and that only the expectant theory should be followed. If there are any such they should, upon entering practice, being a thorough study of the application and effects of drug agents. They will find that, in spite of the nihilistic tendency upon the part of many of our teachers, there is much of worth in drugs, if properly applied. The young man should know how and where to apply drugs and with the accumulation of such knowledge he should exhibit his agents fearlessly and to effect. If he follows such a plan of procedure he will find that success will follow his endeavors in the relief of the sick.

There are two schemes of dosage. The older, handed down to us by our forefathers, is that of administering full physiologic amounts of the drug employed at intervals of considerable length. The later method is to employ much smaller amounts of the agent and to administer such doses at more frequent intervals, the idea being to obtain the physiologic, or remedial, action gradually and without submitting the patient to the ponderous blows so frequently inflicted upon him by the use of physiologic dosage. Those who have employed both methods and have given study to the possibilities of each, as a rule, prefer the later one. It would be well for the young man to give both schemes his close attention, in that he may be able to determine, through his own endeavors, the preferable one. There are many things to recommend small doses at frequent intervals to effect. Many drugs are not permissible of exhibition in full physiologic dosage to numerous persons, while on the other hand the same persons may be given the smaller doses without the least untoward results. Not infrequently is it found that the effect is obtained and maintained with the use of but small amounts of drugs, given as suggested, in small doses at frequent intervals, in fact, in some cases, we have found that a single full physiologic dose divided into smaller amounts and administered as suggested, has frequently

carried the patient well on the road to recovery, whereas several full doses, at longer intervals, would have been necessary to have obtained like results.

The young man should give close attention to curative medicine as he will find, despite the discussion of preventive measures, that disease will continue to occur as long as the conditions of civilization remain as at present, and that much more of his time will be employed in bringing his patients back to health than in seeing that they do not become sick.

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MORE HINTS FOR THE NOVICE

W, STUART LEECH, M. D., Portland, Oregon

(Continued from Page 126 May Recorder)

If you are already in practice and are not a subscriber to three or four medical journals, I would with all sincerity, advise you to get out of the profession as soon as possible. You cannot, with justice to yourself and the public, get along with less than five or ten medical journals. I know of some physicians who subscribe to every medical journal published in the country.

If you have a uterine sound or curette in your case discard it until you have been in practice long enough to appreciate its dangers and usefulness. It is better to have too many haemostatic forceps than not enough, and if your finances are not too much reduced buy a pair of obstetrical slippers, some parturients never like to be without them.

Fear not to call in a consultant when necessary. Rather than detract it will add to your judgment and growing reputation. Honor and reverence the older heads; they are the only ones who know the rough road you are traveling, and can give you more assistance and sympathy than anyone else.

Give as little medicine in as palatable and simple a manner as possible. Never give a medicine unless you know what you are giving it for and what results it will produce. Recognize no dose, but give the drug for its effect; while doing this, bear in mind the drugs that have an accumulative tendency. Do not copy your prescriptions from some pocket medical formulary or from the advertising sheet of some manufacturing chemist. Never mention but to condemn in toto, all "patent" medicines as worse than useless. Look with suspicion upon all specially prepared formulas. In brief, get down to business and practice medicine.

Class all individuals under three heads or diatheses, viz.: the strumous, the tubercular and the rheumatic. The strumous include the syphilitic, scrofulous, and generally all those of a light complexion; the tubercular can be recognized by the high, tapering, roof-pointed head, prominent cheek bones, freckled complexion, long neck, sandy or red tinted hair. There are others of this diathesis whose portrait is raven black hair, brown eyes, large bones, and non-elastic step. Being able to recognize these two diatheses, class all others under the rheumatic.

In combating any disease remember the particular predisposition of the patient and prescribe your drugs accordingly. You should logically make your diagnosis and always guard against the predisposition of the patient. Do not be a symptomatic doctor, for he who treats symptoms alone has already "hoisted the white flag" of defeat.

Remember that a temperature above 105° will generally cause a convulsion in an infant, and that three or more of these convulsions may produce an epileptic; also that a mother who is fit to give birth should nurse her offspring. Remember that from fifty to eighty per cent. of the children who die under five years of age are bottle fed. Remember

that mothers, stupid nurses, and careless women frequently make opium habituees of their nurslings by dosing them with soothing syrups, teething cordials, paregoric and other soothing liquids.

If you do not make use of antiseptics, especially in labor, you are indirectly a murderer. No branch of the general practitioner's practice requires more self-poise, sympathy, and skill that that of obstetrics, and, when diseases or death follows a normal case of labor, its cause can be traced to none other than to ignorance or gross mismanagement.

Be very, very cautious how you accept new fads or new cures of any description. Do not condemn any of them unless you are perfectly familiar with them. Search into all the new modes, -isms, etc. If you find that they contain any good, anything to lessen the pain of humanity, sift out the chaff and take the rest into your armamentarium. From spiritism, hypnotism, Eddyism, osteopathy, or any old pathy you can learn something. If there is anything good, it makes no difference whether you learn it from the old woman of the mountain valley, nabob or quack, the most gifted professor of Europe, or the ignoramus of your own vicinity, adopt it for your own use. You can in this manner, keep abreast of the times. God's factories are working for you and when the finished product is presented to you on a silver-waiter or dingy pan you must accept.

If you are just commencing your practice of medicine, equip yourself, as well as your finances will permit, with good instruments and the latest medical books. "I like books, and have the easy feeling when I get in their presence, that a stable-boy has among horses." You can do without instruments easier than you can without a library. Don't give people an opportunity to say "Here comes old Doc. Gamboge and Jalap Cure," or Doctor Aloes and Asafoetida. Learn the uses of all the new remedies. Remember the actions of paraldehyde, apomorphine, amyl nitrite, the coal tar products, etc.

Some things seemingly insignificant are of vital importance both to the patient and the physician. You may be called in to see one of your lying-in-patients a week or ten days after delivery who will give you a history of having disobeyed your injunction by getting up on the seventh or ninth day. Shortly after this the patient noticed quite an enlargement of one leg and localized tenderness. Will you pass it unheeded, by prescribing for what you think is the remains of an albuminuria? Denude the foot and whole limb up to the hip and search inch by inch for the tender spots which the patient is unable to locate with her hand. It is hard to locate on account of its tortuous course. You undoubtedly have a phlebitis due to alterations in the blood, blood stasis, or exhaustion. It may undergo a development by softening or be converted into metastatic abscesses indicating pyaemia with its unfavorable prognosis.

You wil have this to deal with in some of your convalescing typhoid fever patients.

My patients often bring the charge of not visiting them enough. I will have to acknowledge this to be true to a certain extent, especially was this so in the early part of my career. I never felt like going to see a patient repeatedly when there was no necessity for doing so. It goes aginst the conscience of any physician to make unnecessary visits, thereby heaping up unnecessary charges on an already overburdened public. On the other hand, bitter experience has taught me to do otherwise, that is to visit and visit as long as you think there will be no complaint about the charges. When you are called in to see the sick person he or the family will regard you as the sentinel of the citadel of health. They regard you no longer as an alien but a household god and you are expected to guard well the gates. If you cease suddenly in your visits they will become discouraged, think you are neglecting them, or what is worse that you do not under-

stand your business. This latter idea may originate from some insignificant symptom or sequal of the disease you have been treating which you may have expected but the patient did not anticipate, consequently he is frightened, and hastily sends for some other physician who may or may not treat you fair.

There are numerous cases where you will have to use a little discretion. It may have been a simple case in which you were not expected to make but one call, or the person may have informed you that he was not feeling well and would call on you the next day. If you meet him in passing the next day do not forget to inquire about his health. You are expected to remember all he told you on the preceding day, an dfurthermore, ae expected to know just about how he and all of his kin feel at present.

Notwithstanding your good treatment and faithful performance of what is more your duty and another physician is called in unknowingly and without your consent, do not worry, fret, and fume about the matter. This is a free country full of ignorance and deceit, and you can gain nothing by making an ass of yourself. Ignore such slights and ignorance, do not be made a laughing stock by cutting up unbecoming capers. The very persons who spurned your good will and judgment will be humbly sent back to your shrine by old king colic or pneumonia's frosty chill. Let it be a consolation to you that other members of the profession have and are receiving the same treatment.

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MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 123 May Recorder)

HOW THEY DIED.

PREFATORY.

For the origin of medical science, we are indebted to Egypt; and this knowledge was famous in the days in the days of Moses; and her physicians were celebrated in his day. The laws of hygiene, and the science of sanitation recorded in his books, and enforced on the Israelites, have been ascribed to his knowledge of the Egyptian science of medicine.

The Israelites were required by Moses to practice ablutions; to abstain from certain animal food, such as swine flesh; and they were not allowed to eat any meat except mutton, beef and venison; no fish without scales. As the hog is the land scavenger, he knew the catfish was the water scavenger; and such were interdicted. While in Egypt, however, and not under the laws of Moses, they feasted on the flesh-pots, and the leeks and onions. The bible says, while they were in the wilderness, and suffering with hunger, they sighed for the flesh-pots of Egypt. They murmured against Moses and Aaron, crying: "Would to God we had died by the hand of the Lord, in the land of Egypt, where we had plenty of bread and meat; for now ye have brought us ito this desert, where we must perish with famine."

There were a great many lepers among the Jews in ancient times, and thousands died of the loathsome disease. It was rarely a disease among those who were well to do, and were able to have the best of everything, but was common among the poorer classes, being largely superinduced by filth and insanitary conditions, as well as indulging in improper food. It has virtually disappeared among them; especially orthodox Jews, who live accordig to the Mosaic bill of fare. Some Jews are almost entirely exempt from blood diseases, and tuberculosis, and it

must be because they abstain from meats that are unhealthy. As the blood is, so is the flesh; and the blood of swine is not pure.

The articles will begin with an account of the ages, as far as possible, and the manner of death, as may be gleaned from ante-biblical, contemporaneous and post-biblical history. So far as possible, the diseases of bible characters will be described. Such articles may be entertaining, as well as instructive, even from a medical standpoint.

The writer has given this subject a great deal of thought; and has devoted time and labor to research; and he believes that what he presents can be relied on as being authentic.

DEATH, IN HOLY WRIT.

"A little afterward, David also, fell into a distemper, by reason of his age and infirmity; and perceiving that he was near to death, he called his son, Solomon, and discoursed to him thus: 'I am now, my son, going to my grave, and to my fathers, which is the common way which all men that now are, or shall be hereafter, must go; from which way it is no longer possible to return, and to know anything that is done in this world; on which account, I exhort thee, while I am still alive, though already very near to death, in the same manner as I have formerly said in my advice to thee,—to be righteous toward thy subjects and religious toward God, that hath given thee thy kingdom; to observe his commands and his laws, which he hath sent us by Moses; and do thou nothing out of fear or favour, nor allow any lust, or other passion to weigh with thee to disregard them; for if thou transgress his laws, thou wilt lose the favor of God, and turn away his providence from thee, in all things; but if thou behave thyself as it behooves thee, and as I exhort thee, thou wilt preserve our kingdom to our family, and no other will bear rule over the Hebrews.'" He died, having lived seventy years, having reigned seven years in Hebron, and thirty-three years in Jerusalem, over all the country.

Sarah, the first wife of Abraham, died at the age of one hundred and twenty-seven years; and Abraham died at the age of one hundred and seventy-five years. History says he was a man of incomparable virtue.

Isaac lived one hundred and seventy-five years, also: and Josephus says, he was greatly beloved of God.

Jacob lived a hundred and forty-seven years; and Josephus says, "he fell into a disease and died in the presence of his sons," while in Egypt. His body was conveyed by Joseph, to Canaan and died.

Joseph died at the age of a hundred and ten years; and was a great man, as well as being a man of admirable virtue. He "made commandment concerning his bones," and when he was embalmed, and coffined in Egypt; and when long after, Moses prepared for the exodus, he took care to carry up Joseph's body with them. After Moses died Joshua took charge of the bones of Joseph, and when Canaan was conquered, the remains were buried in a graveyard bought by Jacob, in Shehen.

Joshua died at the age of one hundred and ten years, and buried on his own inheritance. He commanded the armies of Israel twenty-five years, and was a great general, as well as an extraordinary man,—honored of God. His first victory was the taking of Jericho.

Aaron, the elder brother of Moses, who was for forty years, a high priest, for his sin in allowing the Israelites to worship the Golden Calf, was "stripped of his sacredotal garments"; and Moses put them upon Eleazar, the son of Aaron. After giving the Elders, and congregation of Israel an affectionate farewell, he laid himself down on Mt. Hor and died. The burial place of Aaron, like that of Moses, is not known.

Abimelech, a son of Gideon, who slew all the seventy sons of his father, save one, who hid himself, and after setting fire to an idol temple, destroying over a thousand men and women who had fled there for safety, he became ruler over the people; and laying siege to Thebez, was slain by a stone cast upon him by a woman, fracturing his skull. Not dying immediately, and being notified that he might die at the hands of a woman, he was thrust through by his armor bearer.

Absalom, the third son of David, rebelling against his father, was slain by Joab, the Commander of the King's Army.

Adonijah, the fourth son of David, was put to death by his brother, King Solomon.

King Agrippa died of intestinal disease, in the city of Rome.

Ahab, the impious king of Israel, was slain by darts and died miserably, Jezebel, the wife of Ahab, daughter of the King of Tyre, mother of Joram, another king, the grandmother of Ahaziah, King of Juda,—was a very wicked woman, who was thrown down from a window and trodden under foot by the horse of Jehu. She was mangled beyond recognition.

Joab, nephew of King David, and Commander of the Army, was put to death by Solomon, in accordance with the will of David.

Ahasuerus, or Cambysis, son of Cyrus, and King of Persia, died from a wound of his own sword, which resulted from a fall from his horse. The other Ahasuerus, King of Persia, and husband of Esther, died after a reign of thirty-six years.

Ahaz, son of Jonathon, King of Judah, and son-in-law of Zechariah, also father of Hezekiah, was such an impious ruler, that he was refused the burial place of Kings.

Ahaziah, son of Ahab, was king but a short time; and being idolatrous, he was cursed by Elijah, and soon died. Ahaziah, who was king, and who was related to the wicked Ahab, on his mother's side, was killed in his chariot, by Jehu.

Amasa, who superseded Joab in command of King David's Army, was treacherously betrayed by Jacob, who slew him. Pretending to wish to salute him with a kiss, he seized him by the beard and stabbed him to death. Amasa was a nephew of King David, and son of Jether and Abagail, having been but twenty years old when slain.

Ananias was stricken by God for lying. Ananias, of Damascus, however, was a disciple of Christ, to whom Paul went to receive his sight. Another Ananias was the high priest, who ordered those near Paul to smite him in the mouth. Paul told the one who smote him that God would smite him,—the "whited wall." The sons of Ananias headed a band of mutineers who tore down his house.

Andrew, the apostle, was scourged and crucified by the governor of Patria, and the body was cremated by Maxamila, a lady of wealth and quality.

Archelaus, son and successor of Herod, the Great, was summoned to Rome to be tried for numerous cruelties; was convicted, and imprisoned in Vienna till he died.

Asa, another King of Judah, from sixteen years of age till he was sixty-seve years old, died of leprosy.

Balaam was slain in battle.

Bartholomew met a martyr's death in Asia.

Eli, ninety years old, on hearing that his sons were slain, and that the Philistines had taken the "Ark of God" away, fell backward from his seat, and broke his neck, from which he died.

Everyone of the apostles met violent deaths, except St. John, who was banished to Potmos; which was more intolerable to him than was the banishment of Napoleon to St. Helena. St. John was much the youngest of the apostles; but he was admitted to the greatest confidence and love, of Christ. To him was

confided, so to speak, the most private passages in the life of his Master. Paul said of John: "Among all the evangelical writers, none are like John for the sublimity of his speech; and the height of his discourses, which are beyond any man's capacity to reach and comprehend." After John's release from Potmos, he labored for seven years; and although Emperor Trajon imprisoned him, he escaped execution. He lived longer than any, his age having been one hundred years, or nearly so, at his death.

St. Philip was preaching against idolatry, and proclaiming redemption through Christ, at Hierapolis, which making so many converts, including the magistrates, who imprisoned him, and sentenced him to be hanged against a pillar.

Bartholomew was fastened to a cross by the Phrygians; but they finally relented, and set him at liberty. It remained for the idolators of the region of the Caspian Sea, to cruelly beat him, flay him on the cross, finally sever his head from his body.

St. Matthew suffered martyrdom in Esospia, having been slain with a halberd. No apostle was a more transformed man that St. Matthew; from a taxgatherer to a martyr of the "Gospel of the Nazerine."

St. Thomas preached in Judea, Parthia, Persia, and Ethiopia. He became from the doubter, one of the most zealous and invincible champions of Christ. He was finally killed by being run through with a lance. He had remarkable success, till he met his death.

Simon, the Canaanite, after long service in preaching the Gospel, was finally crucified in Persia.

Matthias was stoned, and finally beheaded in Ethiopia. Matthias was made an apostle to take the place made vacant by Judas Iscariot.

St. Mark, after laboring in many fields, and meeting with great success. At Alexandria he organized churches, and placed pastors over them, when the enemies of the church would not allow him to continue in his work in peace, for while he was laboring for the Master, at the time of the Easter celebration, the idolatrous inhabitants siezed him, and binding his feet with cords, dragged him over the streets, and over the craggy ground to a precipice near the sea, leaving him there for the night. Early the next morning, the cruelties began again. They dragged him in a barbarous manner, till he expired. Their malice did not end then; but they burned his mangled body. The Christians gathered up his bones and ashes and buried them in the place where he preached so effectively. His remains were finally removed to Venice. His Gospel, by himself, was written at the earnest solicitation of the converts at Rome.

St. Luke, a native of Antioch, and a physician and artist, spent a great deal of his time with Paul. He wrote the most graceful and beautiful gospel, as well as the Acts. Independent of Paul, he traveled and preached in Egypt, and Greece, and the idolatrous priests hanged him on the limb of an olive tree.

St. Barnabas traveled a considerable time with St. Paul, and helped him in establishing churches in different parts of the world. Finally a disagreement arose between them at Antioch; and Barnabas went to Cyprus. He suffered martyrdom. Certain Jews returning from Syia and Salamis, where Barnabas was peaching the Gospel, became incensed at his power and success, fell upon him as he was preaching in the synagogue, dragged him out, and after inhuman tortures, stoned him to death.

John Mark interred his body in a cave, where it remained till the time of Emperor Zeno, A. D. 485, when it was discovered, with the Gospel of Matthew lying on his breast.

Timothy, the disciple of Paul, became the first bishop of the Church, at Ephesus, where he remained for many years, and where he met his death.

(To be contiuued)

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

WHY A SOCIALIST IS.

In the March number of The Recorder I had a short article on Socialism. In the April number Dr. Geo. L. Servoss takes up the matter. His article is not an argument against Socialism, but merely a presentation of the ideas of the half way individualist of the present day. He raises eight points, a consideration of which is necessary to a clear explanation of the matter. I propose to consider them as brifly as possible. They are: 1st, Ownership; 2nd, Profit; 3rd, Capital; 4th, Education; 5th, Incentive; 6th, Survival of the Fittest; 7th, Evolution of the Corporation; 8th, Individualism.

OWNERSHIP.

The earth belongs to man because no other animal is able to dispute his claim.

The title rests on force because he is able to maintain his claim against all other animals by force. The idea of private or individual ownership, as also the idea of collective ownership, depends upon both these facts—the right and the force to maintain the right.

Le us assume as a fact (a sort of legal fiction, you know, because it is incapable of absolute proof) that each individual being has a right to his natural life. Man cannot live except upon the earth. That is self evident so far as we know. If you grant a man right to own a part of the earth you must grant him the right to own all of it, for where can you draw the line? And you must defend his title. This right gives him the power to say to the rest of mankind: "You cannot come upon my land except upon my terms," and Society must uphold him in this if it is to be consistent.

What are we going to do with the rest of mankind? Shoot them? And if you are going to grant such a right what other authority have you besides Blackstone's legal fiction? But we are scientific men, or at least have a scientific training, therefore let us stick to this in a scientific way. Those who do not own any part of the earth's surface must then live upon this earth only according to the terms of those who do own it. When this state of affairs obtains, and it now already exists, equality is destroyed; one class is in the ascendancy and one is dependant; one is the master and the other the slave. But equality has been one of the things for which liberty loving people have struggled through the ages. If equality is to be desired (and here is where the individualist and the collectivist part company) the title must rest in all mankind and not in any part of it. That mean common ownership, collectivism, Socialism.

PROFIT.

Adam Smith says that "the produce of labor constitutes the natural recompense or wages of labor." If this be true, then profit is that portion of the produce of labor which is taken from the laborer without returning an equivalent therefor. In other words profit is something taken for nothing.

Under our present system one of two things is occurring: either labor is getting all it produces or it is not. Since some individualists are able to pile up enormous reserve capital without creating any, it follows that they must be taking something produced by labor for which they are not returning an equivalent. They are then taking something for nothing. What does Webster call that? Then labor is not getting all it produces. Let us not be mealy

mouthed; Capital steals from the producer. Capitalism then is a synonym for thievery.

This is made possible by the fact that if "one man or set of men are granted the right to absolute ownership of the earth they have the right and power to say to the rest of mankind 'you cannot come upon my land except upon my terms.'" Thus equality is destroyed; the profit taking class is in the ascendency and the profit giving class is dependent; the one is the master and the other the slave. If equality is to be desired (and here is where the Individualist and the Collectivist part company) common ownership must obtain and the profit system must be destroyed. That means Collectivism, Socialism.

CAPITAL.

Webster says that Capital is the stock or money for carrying on any business. That is why we call our present system of handling the necessary industries "Capitalism." Our present Capitalism is based upon the wage system. The wage system was evolved from serfdom just as serfdom was evolved from slavery. It is based upon the proposition that so long as the ruling class own the land and the tools the worker can be hired when he is needed and fired when he is not needed. This was found to be safe because the iron law of necessity forced the worker to continue his hunt for a master and kept him as absolutely a slave as he ever was. Thus Capitalism and slavery still go hand in hand.

Capitalism, like its deadly opponent Socialism, is now world wide. It has achieved its marvelous development as the result of the evolution of the simple hand tools into the enormous power driven machines, involving the use of larger and larger amounts of capital in the industries. So far the Individualist and the Collectivist have come hand in hand. The Individualist because he believes in and is satisfied with this process of evolution; the Collectivist because he has been waiting for its present stage to adapt it to his own uses.

EDUCATION.

The tools of education have always been in the hands of the master class till within the past century, and they still remain very largely under their control. For that reason education has been shaped to their needs. In "The Passing of the Idle Rich," by Frederick Townsend Martin, an article running recently in Everybody's Magazine, that fact has been shown up very clearly. It is a fact that the great mass of the people think those thoughts and do those things that they are taught to think and do. So far the Individualist and the Collectivist go together; the Individualist because he would have it so and the Collectivist because he would take advantage of the truth these facts teach, which is: That the people can be taught.

The Individualist would go on teaching the kingship of Individual power and might and the worship of men—separate men. The Collectivist is teaching the Godhood of the human race as a whole and that no man is great only as he is great in giving. Education in the past has been concerned only in teaching men how to take. It is now the belief that the best education is that which teaches men how to serve—how give the best that is in them to Society. If the ideal of the Individualist is continued it means that equality must remain unknown; that the profit taking educated property owning class will continue in the ascendency and that the profit giving uneducated propertyless class will continue dependent; that the one class will continue to be the masters and the other class the slaves. And yet science has never been able to devise any better test of aristocracy than the Wasserman reaction. If equality and justice are to be desired (and here is where the Individualist and the Collectivist part company) common ownership must obtain, the profit system must be destroyed and man must be taught

how to give. And that means Socialism.

INCENTIVE.

Under Capitalism the necessity for profit develops an incentive to adulterate food, to put shoddy in clothing, to steal, to defraud, to rob, and to hold a private title to the land and tools which are necessary for the collective use of the people. True enough, under Socialism there would be no incentive to any of these things because it would be easier to earn a living that it would to steal it. But the worthy things of life —those great things that men do for the love of doing and for the love of humanity would furnish a much greater incentive than now because these men would be honored for how much they gave not for how much they had taken. If equality of incentive is to be desired (and here is where the Individualist and the Collectivist part company) common ownership must obtain, the profit system must be destroyed, man must learn how to give, and he must be taught the things that are really worth while in a worthy life. And that cannot be done under Individualism because it is the essence of Socialism itself.

THE SURVIVAL OF THE FITTEST.

The law of the survival of the fittest is stated thus: That individual is best fitted to survive who is best able to supply himself with those things needful to sustain life. Good! Let us stick to that law. If it is true it applies only to the individual but also to forms of government, even to the human race itself as a whole.

Let us state that law again: That form or system of government is best fitted to survive which is best able to supply all its members with those things needful to sustain life. Apply that law to our present system of government with fifty per cent of its people less than a week from starvation and then apply it to the system of collective ownernship proposed by the Socialists and see for yourself which is most fit to survive.

EVOLUTION OF THE CORPORATION.

The corporation came into existence because the great power driven machines made joint ownership inevitable. It evolved from partnerships by the law of the survival of the fittest. It is still subject to that law. The trust is the result of the operation of that law. Two courses are open to competing corporations: Either they must be forced into bankruptcy or they must join the trust—the effect is the same in either case. When the trust appears in any line of production the opportunity for reinvestment of its own earnings in its own business ceases and vast sums are turned loose for investment in other lines of business. The trust, like Capitalism and Socialism, is now international. If the evolutionary process continues, and there is no force on earth that can stop it except Socialism, it will go on till one thrust will control all the lines of business on all the earth. And then what. Why, it will follow that inexorabel law of business which directs that things shall be produced where materials are cheapest, transportation easiest and labor most helpless. Is that what you want, Mr. Individualist? That is what you say you want when you say you are an individualist. What will occur then? One of two things: Chaos, or a benevolent feudalism. We Socialists do not want either chaos or feudalism, however benevolent. The evolution of business has shown us how the industries can be managed in the interests of all the people just as well as in the interests of a few. We believe that it is the duty of intelligence to learn these lessons for the benefit of the race. We are the true conservative force in Society today because we wish to save and use all those things which are good, and not push blindly on to destruction. We wish to help direct the forces of evolution along natural lines and not along dollar made lines.

INDIVIDUALISM.

Webster says that Individualism is

the doctrine that nothing exists save oneself. And this is the doctrine that is opposed to Socialism! Is it any wonder that the doctrine of Socialism has made greater progress in the sixty odd years of its existence than any other has in sixty centuries? Do I need to discuss Individualism further? I think not.

SUMMARY.

I suppose Dr. Servoss will say that I have evaded the question. If he reads this through carefully he will see that I have not. I thought the best way would be to dip the pup (meaning the subject) and then kill the fleas. The Doctor is worried for fear all the people could not run a business as well as a few of them. Let us take a railroad as an instance. There is not a single thing done by a railroad company that is not done by a hired man. Could not the whole people hire these same men as well as a part of the people?

He is worried for fear the people will not have sufficient capital to operate the large industries. In the first place capital was made by man and not man by capital. Give the people access to the resources of the world and they will create more capital than the world has ever known so far and it will not be owned by one man or set of men either.

Under Socialism the people will not be taking a pecuniary interest in any line of business, as suggested by the Doctor, but they will be taking a life interest for use, not a pecuniary interest for profit.

The Doctor suggests that if Socialists believe that business should be owned by so many they should buy stock therein. We do not believe that any business of common use should be owned by either the many or the few. We believe they should be owned by all. Buying a little stock would not settle the matter at all.

True, the commonwealths and municipalities are corporations in much the same way as private companies are. The Doctor's explanation of corporations is pretty good but he must remember that the public corporations are tools of government; just exactly what the Socialists propose to make of the private corporations.

The Doctor's discussion of the masses does not apply to Socialists. He means disgruntled Republicans and Democrats of whom I have no comments to make.

The Doctor says that the average Socialist refuses to take a risk. He should remember that the average Socialist understands this system thoroughly. His refusal to share the risks of the robber ought to impress this fact.

The Doctor says that the public is carrying an immense debt. How could it be otherwise under a system of private owned capital for profit.

The Doctor says we would become drones under Socialism. Well, we have two sets of drones now; The capitalist and the tramp, and they both live at the expense of the worker. If we must have drones let us all be drones. The prospect does not scare anyone except those who are now drones.

The Doctor speaks of the postoffice being in debt. That is strange argument. It is a government department; so is the army and the navy. He does not mention the expense of operating them. Why should the government make a profit? The people as a whole do not need profits; all they need is what they produce. Give them the opportunity and if they need more they will produce more—not for profit but for use. Be assured that the people are not fools even if the Individualist does think so. Give them all equal opportunities for education and give them the product of their toil and they may even become civilized after awhile.

E. I. Raymond, M. D.

New Windsor, Colo.

INHALATIONS.

It is not my object to waste space in theorising on inhalations but to take up the practical side of the subject at once.

According to Dr. F. P. Davies, of Enid, Okla., inhaling the vapor from hot cotton seed oil is valuable in pulmonary tuberculosis.

Dr. Hancock's favorite prescription for asthma is a mixture of stramonium leaves, powdered anise seed, and potassium nitrate, burned in a funnel and the fumes inhaled.

The following is of value in asthma if used at the first appearance of symptoms:

℞ Beechwood creosote
Oil eucalyptus .....a a ss—j
Ethyl iodide.....iv

M. Sig.—Five to ten drops to be used as an inhalent every half hour until relieved. It is also of value in pulmonary spasmodic paroxysms.

Amyl nitrite is a valuable inhalant and useful as an emergency remedy. The pearls should be carried by all physicians.

I have seen the statement made that a prolonged inhalation of croton oil would produce purgation. This was noted by a physician after he would be busy most of the day in giving the so-called bannscheidismus treatment.

The inhalations of boiling hydrogen peroxide for five minutes at a setting repeated four or five times is recommended to abort colds.

Formalin used as an inhalant is said to be very useful in the treatment of pneumonia according to Dr. H. C. Howard. The inhalant is prepared as follows:

℞ Alcohol .....ʒjss..
Formalin .....ʒiij
Chloroform .....ʒij
Oil rose geranium.....gtt xx

M. It should be used from a large mouth vial held near the mouth of the patient.

Bromine has been used by inhalation with good results in tuberculosis.

Dr. C. S. Bolender uses:

℞ Fld. ext. hamamelis.....ʒj
Boric acid .....ʒj

Mix in vaporizer and use for ten minutes for once a day for the first two or three weeks then once every other day until cured, in catarrh. Sometimes he adds two grains of potassium permanganate in each application and in atrophic catarrh he usually adds two drachms of hydrogen peroxide to the above formula for three or four treatments to cut away the pus and exudate.

Dr. Bolender claims that this treatment will cure all cases of catarrh, bronchitis, and tonsillitis and will aid in the treatment of asthma, diphtheria, scarlet fever, etc. He uses a special inhaler described on page 73, May 1906, Medical Summary or applies a Turkish towel over the head and confines the steam.

In cases of laryngitis put two drachms of tincture benzoin comp. in one pint of boiling water and inhale.

The late Dr. Ben H. Brodnax used the following formula in bronchitis:

℞ Vinegar .....ʒj
Coal oil
Turpentine aa .....ʒj

M. Sig.—Put in a tin vessel and bring to a steam over a fire or lamp. Inhale the fumes. The head and vessel can be covered with a cloth so the patient can inhale it better. It should be inhaled by the mouth and hold as long as possible, then exhale through the nose.

Another one of Dr. Brodnax's formulas for the same purpose was:

℞ Aqua .....ʒj
Kerosene
Spts. turpentine aa.....zj

M. Sig.—Boil in a vessel and inhale the steam.

The following is an antiseptic vapor in laryngeal phthisis:

℞ Creosote
Oil eucalyptus .....aa gtt. xl
Pulv. talc. .....q. s.
Trit. et. adde.
Aqua .....ʒj

Sig. One fluid drachm added to a pint of water at 140° F. and the steam inhaled for ten minutes.

In acute coryza:

℞ Camphor .....ʒj
Menthol .....gr. xxx
Chloroform .....ʒiij

M. Sig.—Inhale a few drops from the palm of the hand or a piece of cotton. Gives great relief in acute coryza.

Dr. H. L. True, of McConnelsville, Ohio, uses the following in bronchial troubles, etc.:

℞ Oil pine needles
Guaiacal .....aa ʒij
Camphor .....ʒiv
Menthol .....ʒvj
Oil eucalyptus .....ʒj

M. Sig.—Use in a True inhaler which can be obtained from Lloyd Bros. of Cincinnati, Ohio.

Here are three formulas that are often used in bronchial troubles, etc., where inhalations are often used in acute diseases.

No. 1.

℞ Oil eucalyptus
Oil pinus pumitio .....aa ʒij
Menthol crystals
Thymol crystals
Gum camphor .....aa gr. xxx
Oil cinnamon .....ʒj
M. Sig.—Use in a simplex inhaler.

No. 2.

℞ Gum camphor
Benzoin tinct. .....aa ʒj
M. Sig.—Use in a benzoin kettle.

No. 3.

℞ Gum camphor
Menthol crystals .....aa ʒij
M. Sig.—Use in a simplex inhaler.

Here are two formulas that are generally used in chronic conditions:

No. 1.

℞ Terebene
Oil pinus pumilio
Oil picus liq.
Oil cubebs .....aa ʒij
Creosote, beechwood .....ʒij
Oil sweet almonds ..q. s. ad ℥iv
Sig.—Use in a simplex inhaler.

No. 2.

℞ Oil eucalyptus
Oil pinus pumilio
Oil picus liq. .....aa ʒij
Creosote beechwood .....ʒj
Gum camphor .....gr. xx
Benzoin tinct. .....q. s. ℥iv
Sig.—Use in a benzoin kettle.

The simplex inhalers and benzoin kettles can be obtained from Frank S. Betz Co. of Hammond, Ind.

Immediate effects of iodine can be obtained by inhaling of ethyl iodide 15 to 20 drops on a handkerchief, inhaled every 2 to 6 hours. Useful in brain syphilis, spasmodic asthma, whooping cough, etc.

In an article July, 1910, Medical Summary on "My Plan in the Use of Iodine" by Dr. M. W. Alter I find he makes the following statement:

"My method is this. I saturate a small quantity of absorbent cotton (wool is better) with tincture iodine and ignite it and allow the patient to inhale the fumes from it as it burns. If this is done in a closed room the air will become charged with the gas from the burning iodine and will produce its alterative effect in a more marked degree than in the ordinary method of administration. I have observed that this method produces some stimualtion of the lacrymal function and after a treatment there appears to be some considerable sharpening of vision by stimulation of the optic nerve and perhaps the stim-

lation of the whole visual apparatus."

Again he says:

"Oher noticeable features are the odor of the drug on the breath, the perspired fluid, the urine and fecal dejections."

Dr. Alter uses iodine this way for general systemic effect and especially in all respiratory diseases or catarrhal type. Sometimes he adds a little potassium chlorate and thinks it more rapid in action in the relief of dyspnea.

Under the head of Incipient Tuberculosis I find the following:

"Twitty states that he has given the following method of treatment a very careful and extensive trial and that he has no hesitation in recommending this special plan of treatment in incipient tuberculosis. The wide experience not only of himself but of other reputable physicians has put this method of treatment beyond the experimental stage. The following is the original prescription:

℞ Iodi .....gr. x—xxx
Carbonei disulphide.....ʒj

M. Sig.—Put from 5 to 10 drops on the gauze in an antiseptic (glass) inhaler and inhale through the mouth and exhale through the nose. Inhale from three to five minutes slowly at first, repeat from three to six times a day, depending upon he physical condition as well as the individual idiosyncrasies. Indications—respiratory inflammation, including incipient tuberculosis disease:

"It is needless to add that this inhalation is not independent of such valuable agents as open air and hygienic measures as may be indicated. As to other medicines or foods, crude cotton seed oil may prove one of the best flesh builders.

"The following aromatic modified formula may sometimes be useful:

℞ Iodi .....gr. x-xxx
Mentholi.....gr. x
Olei gaultheriae .....m xxx
Carbonei disulphidi .....ʒiv
M. et. ft. ol.

Sig.—Use as directed above."

On page 101 Henley's "Twentieth Century Book of Recipes, Formulas and Processes" are several asthma papers, asthma cigarettes, and asthma fumigating powders for inhalation for the relief of asthma. It will be well for any physician to look over these formulas given by Henley if interested in this form of treatment in asthma.

The following five formulas are from Battle Creek, Mich.

No. 1. For chronic catarrh of the nose, throat and lungs.

℞ Oil eucalyptus
Menthol crystals .....aaʒij
M. Sig.—Use in inhaler.

No. 2. For so called dry catarrh of nose and throat.

℞ Oil cubebs .....ʒj
Oil sassafras .....m xx
Oil Scotch pine.....ʒj
Oil eucalyptus.....q. s. adfwyp
M. Sig.—Use in inhaler.

No. 3.—For asthma, acute nasal catarrh and soreness from cold.

℞ Menthol crystals .....ʒij
Gum camphor .....ʒj
M. Sig.—Use in inhaler.

No. 4. For chornic nasal catarrh with little discharge accompanied by an offenive breath.

℞ Menthol crytals .....ʒij
Oil gaultheria .....m x
Alcohol .....ʒij
Oil cinnamon .....mv
M. Sig.—Use in inhaler.

No. 5. Excellent for hay fever.

℞ Oil eucalyptus
Gum camphor .....aaʒij
M. Sig.—Use in inhaler.

The magic pocket vaporizer can be obtained from the Good Health Pub. Co., of Battle Creek, Mich., and is especially adapted to use the above five formulas.

Cresolene is an important remedy for inhalation when used in a cresolene vaporizer which is a lamp made for the purpose.

J. A. Burnett, M. D.

THE TREATMENT OF PULMONARY CONSUMPTION BY BROMINE INHALATION.

By special request from Dr. J. A. Burnett, I embody herein, for your journal, a "short article descriptive of my treatment" of the pulmonary form of tuberculosis by Bromine Inhalation. Although pressed for time, I will comply, for as evidence of pressing need in the profession of practical and efficient suggestions for handling this disease, I have before me twenty-four letters from physicians in sixteen different states, received since my article published last November in the American Journal of Clinical Medicine, pp. 1230-31, all anxiously asking for detail of my treatment.

At the outset, however, I must say that I cannot hope, in a "short article" to do justice to the inhalant while ignoring the many measures necessary in these cases to improve the general and special nutrition to "back" its action (for it is well known consumption is primarily a disease of mal-nutrition, and whatever else obtains the vital resistance must first be lowered before the germs can make their attack, hence the practical problem is to raise the vitality while killing the germs.) The special province of the inhalant is to kill the germs and destroy the infection, disinfect and stimulate the elimination of the diseased debris and by its selective and alterative power to promptly force a line of demarcation between the diseased and healthy lung tissue: liquifying the former for expulsion and stimulating the latter to heal.

The special feature of my treatment is based on the fact that bromine, in proper combination, is the only drug, I know, which can be depended upon to do this espeial service, a drug violently destructive, escharotic and disinfectant, whose fumes breathed pure are deadly. It can be so diluted and modified by air and other drugs that it can be introduced into the diseased lung safely, where it expends its strength, destroying pathologic and stimulating phy siologic conditions, effectively, without poisoning or producing pneumonitis.

To modify the bromine, properly, in preparing the inhalant, I use the following formula, as a base, giving average proportions which can be somewhat modified for extreme cases:

℞ Alcohol (deodorized) iii
Bromine .....ʒjss
Chloroform (Squibbs).....ʒiii
Ether
Hydrocyanic Acid dilute aa gtts xxx

M. Sig. Keep tightly corked in a glass stoppered bottle, to avoid rapid deterioration. Use as inhalant three or four times a day as directed.

You will notice that each dilutent has its specific action in reducing the irritation of the tender lungs and checking spasm or cough while the bromine exercises its peculiar escharotic, deadening and disinfecting action on the germs and those tissues weakened beyond repair.

For administration I find two methods practical, according to the case. First; by common inhaler made from a six or eight oz. bottle, wide mouth and deep cork. Insert small glass tube which should be slightly bent just through the cork, for mouth tube, to inhale; another through the cork extending to near the bottom of the bottle for inlet of air. To charge; put about 1½ oz. of pure water in inhaler and from

30 to 50 or 60 drops of the inhalent, and cork quickly. To inhale; have patient sit erect, shoulders back, remove cork from tubes, and have patient draw in steadily and fully, to expand the lungs all possible; the point being to get the medicine into the diseased tissues as strongly as possible without strangling or causing direct irritation, —if too strong, draw to point of irritation ,then remove inhaler from lips and continue to draw in fresh air until lungs are filled,—hold a moment, and, then exhale slowly and with some force, as though obstructed, by partially holding nose or lips closed; this is to open cells and drive the medicine into the deeper recesses. This should be done, thoroughly, for ten or fifteen minutes, three or four times a day, with "whiffs" between times to control cough. As the medicine is very volatile, it must be renewed often to keep up to effective strength. By the second method, which I prefer;—if I can train the patient to do it correctly—is to put one ounce or so of the inhalent in a six or eight ounce glass stoppered bottle and take it by "syphoning" the inhalant mixed with air into the lungs; in the following way, patient can thus regulate the strength he can best take, having it ready to take as needed. To inhale, I have patient remove stopper and put the neck of the bottle to his mouth, with upper lip just over and across the bottle's mouth without touching upper lip, then, draw air in violently, with the upper lip and across the bottle's mouth, so as to "syphon" the medicine as vapor mixed with the air into the lungs; other directions same as by first method, but, it takes practice to do the latter successfully.

If the cough is dry and harassing, I give with "whiffs" of inhalant, granules of emetine 1-67 of a grain every three or four hours; if "pounding" with offensive sputum, I give Abbott's bronchial catarrh granules, same dose and time—"to effect."

If troubled with night sweats and to toughen the skin, sponge thoroughly night or morning, alternately, with solutions of common or epsom salts or soda or vinegar; noting which is the most effective. Remembering sweats mean weakness and are index to the general progress of the disease; also, that depression from worry or nostalgia or deadly. The patient is to be kept out of doors in a cheerful mood by day and by night sleeping on porches, roofs, in tents, etc., anywhere sheltered, but in the open air; same is better than change of climate without this care.

From the foregoing, it is evident that, clinically, it is a matter of "dosing" the inhalant to "do" the germs and infection while you hasten by other means to correct and reinforce the general nutrition, else the end is a probable failure.

As no two cases are exactly alike in nutritional disability, it is impossible to give routine or specific directions applicable to every case, further than to emphasize those trite ones concerning general hygiene, but, the importance of correcting and regulating the diet and securing proper elimination from the bowels, skin and kidneys, the removal of auto-intoxication resulting from retained effete matter consequent upon lack of general tone, can not be overestimated.

While the inhalant is a necessary factor in arresting the disease the most important one, the necessity for using every means procurable with a view of building up and retaining normal conditions so as to support its action, cannot be safely ignored. Details of how best to do the above would take a longer article than this—many however, are in two articles published in the July, 1909, pp. 794-5 and also Nov. ,1909, No. pp. 1236-37 of "The American Journal of Clinical Medicine.

Chas. E. Davis, M. D.

Eureka Springs, Ark.

DISCUSSION OF ARTICLES.

In reply to "Discussion of Articles" by Dr. George L. Servoss, I wish to say that it has its advantages and disadvantages and to consider it from all standpoints I doubt very much of it proving to be a success to anyone concerned. The method advocated would put the editor to great expense. More matter would come in than could be published, in fact most journals get more material than they can publish and there is practically no physician that reads all of any medical journal. Articles submitted to readers for discussion may not fall into the hands of the one interested in the subject that was submitted. It would induce many to write at random and only give opinions that would be of no value. In fact there are physicians that have a "writing habit" and write too much for medical journals. Most physicians that write for medical journals should write fewer articles and shorter ones. Some writers will occupy several pages when it should all be condensed down to less than one or two pages. The editor of a medical journal is usually a broad minded man and very well informed on the various topics of medicine and with a library to consult on any disputed topics. The idea suggested by Dr. Servoss would in my opinion only be of value on certain articles such as would be calling for personal experience on some special topic that has not been thoroughly threshed out to the satisfacion of all such as the value of female circumcision, the value of some new drug, the value of vibratory therapy and certain vibrators, the value of photo-therapy and certain therapeutic lamps, the treatment of certain disesases when authorities are divided such as should or should not quinine be used in malarial hematuria, a favorite prescription for a liniment for external use for the relief of pain and various other topics of similar nature. If a physician has a choice of a certain manufacturer's drugs or a certain vibrator, therapeutic lamp, hot air apparatus, or anything of the kind, he should state it and the editor should be independent enough to not cut it out. All journals that are worth taking are worth binding and easy to turn back and find it if desired. has been published he should always give month and page and then it is easy to tur nback and find it if desired. Some physicians are very plain spoken, some insulting and some with very delicate feelings and too much discussion leads to anger and enemies among both subscribers and editor.

J. A. Burnett, M. D.

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DR. SERVOSS' PROPOSITION.

The scheme of Dr. Geo. L. Servoss is ideal, but I believe it is impractical not only for the editor of a journal but for contributors as well.

You will find that contributors will have neither the time, nor the inclination to indulge much in criticism, or discussion of articles in advance that are to appear from time to time. Then it involves a vast deal of extra labor, and time upon the publisher of a medical journal.

In the first place a critical review of medical contributions is distasteful to the authors, even though it be kind and respectful. Then again, it will tend to deter many from contributing. So far as I am concerned, I have no objections to my articles being subjected to the closest scrutiny, or the widest discussion. Dr. S. is thoroughly qualified to discuss any paper, but the fewest number are. It will be regarded as a kind of censorship. He thinks such a scheme will insure a high class of articles. No doubt it would, but the number would decrease. It puts a contributor on his p's and q's. How you are going to hand over all important articles to your large body of readers, I cannot see. He says

Continued on page 166

RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

THE OPERATIVE TREATMENT OF FRACTURES.

The growth and development of surgery have for a couple of decades been principally in abdominal surgery and along kindred lines, somewhat to the neglect of other fields. One great experience has been gained through it, namely that no region or structure of the body need be prohibited territory for surgical invasion, provided only that strict asepsis is observed. This knowledge is now being applied in ever widening circles to new fields as the brain, the organs of the chest, and also to the treatment of fractures. One of the axioms of the older style of surgery, was that simple fractures should be maintained as such and a conversion into an open wound most carefully guarded against, as the mortality from compound fractures was always very high.

Success in the treatment of fractures depends altogether on the accuracy of reduction and the retention of the fragments. When anatomical replacement has been secured and the fragments are in direct opposition, healing results more quickly and more firmly than where there is overlapping and a corresponding increase in callus formation. Delayed union is largely due to faulty adjustment. It is, therefore, most important that the reduction of the displaced fragments should be made complete and perfect at once. As long as the reduction had to be done in the dark, it was a good deal of guesswork. But now the X-rays gives us the means of knowing exactly what has been accomplished or missed. Many a physician has met with disagreeable surprise on submitting to X-ray examination a certain case of fracture which he considered particularly creditable to himself, to find that the supposed success was far from being a sucess, but that considerable irregularity existed in the outline of the bone. As a matter of fact, it may safely be stated that no case of fracture, treated in the old way by plaster of Paris or some form of splint, can give perfect results.

As a consequence of these considerations and experiences originated naturally the thought that better results would be obtained by applying fixation directly to the broken bone, bringing the severed ends together and holding them in place by means of wire, pegs or metal plates. This can be done only through a cutting operation converting the simple into a compound fracture, contrary to time-honored surgical principles. The new idea has been gaining ground rapidly and the open or operative treatment of fractures produces results formerly not obtainable, especially in such fractnes whee on account of the displacing action of strong muscles upon the fragments retention through splints is practically imposible, as in the upper third of the femur.

Prof. John B. Walker of Columbia University urges that the operation be performed as soon after the injury as it has been determined that reposition is possible by no other method. It is better to clear out clots at once that to wait for absorption as it diminishes the chance of sepsis The bone fragments injure the surrounding soft tissues, producing exudation and swelling. The longer the delay the more the tissues contract and the chief diffienlty in the reduction of fractures is the shortening of tissues which so displaces the fragments. The operative method permits complete removal of soft parts between the fragments, the

most frequent cause of non-union. Asepsis must be observed with the greatest care for foreign material, wire sutures or plates are left in the wound. But results are highly gratifying and obtainel in a shorter time than by other methods.

DANGER IN SANTONIN.

A note in the Leuraine medicale calls attention to the danger attending the administration of santonin to young children. It should not be given at all to children under two years of age. To older ones it may be given in doses of ¼ to ⅓ grain. In combination with castor oil it appears to cause poisonous symptoms similar to those produced by oleoresin of aspidium and castor oil, causing complete prostration and blindness. A case is reported where a dose of half a grain of santonin had been given in castor oil to a girl five years old for the expulsion of round worms. The first dose was vomited. The second dose was given in about two teaspoonfuls of castor oil and the medicine acted eight hours afterward, bringing away a large number of worms. But alarming symptoms developed, the child being completely prostrated for two days during which she never stirred her limbs or moved her eyes. On the third day she began to show signs of recovery but she had completely lost her sight. It returned afterward, but in spite of every care and attention several months elapsed before she was entirely well.

It is well to take note of this danger, for the use of santonin has become almost routine practice, even by the laity, and the combination with castor oil is a favorite method of administration.

ONE LAW FOR ALL.

Our laws are supposed to deal with the rich and poor alike, especially in criminal trials. But we all know that this is merely a supposition, a legal fiction, if you please. The rich man has always a great advantage. Judges are supposed to be absolutely impartial. Yet experience teaches that many of them entertain a bias in favor of the rich. A flagrant example of this was recently furnished by Judge Martin of a N. Y. federal court. He refused to impose a prison sentence upon Henry J. Duveen, head of a rich art importing concern, convicted of smuggling on the excuse that the firm had settled its legal action with the government by paying a million dollars, that the culprit before him was old and sick and that a prison sentence might cost him his life. The same judge a short time before had sentenced a Syrian to seven months imprisonment for smuggling a violin. Referring to this case the judge said the Syrian had paid nothng to the government and had done a good deal of lyng. Did the rich man do no lying?

He defrauded the government of large sums only for the purpose of larger gains and did it repeatedly and cunningly. The poor devil of an immigrant, to begin with, a lower standard of right and wrong, did not pay anything probably because he had nothing to pay with and perhaps needed the violin to make his living or bring him joy and solace in an otherwise hard and joyless existence and he committed the offense only once. Of the two offenders the rich man was undoubtedly by far the more reprehensible. Yet the same judge imposed such unequal punishment upon the two.

It is just such occurrences, unfortunately none too rare, which have created distrust of our judiciary in the public mind. Our boasted equality before the law has become almost a farce. See, how difficult it is to inflict punishment upon a rich man for even the most heinous crime, how sucessfully the trusts have so far been able to evade prosecution and condemnation under the law, what chances a poor man has in a litigation with a rich corporation, and how the states, i. e. the people, fare in our courts in controversy with the railroads. Such conditions ae unknown to our friends in Canada, England, France, Germany. No

(Continued on page 166)

THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

ATLAS OF MICROSCOPIC DIAGNOSIS IN GYNECOLOGY. By Dr. Rudolph Jolly Privat Docent, Chief Physician of the Gynecologic Clinic, University of Berlin. Translated by P. W. Shedd, M. D., New York. Pages 192. Illustrated with 52 Colored Plates and 2 Textual Figures. Quarto, Cloth, Price, $5.50. Rebman Company, 1123 Broadway, New York.

The value of this book is in the colored plates. The fifty-two colored plates represent various pathological gynecologic conditions. The physician can use these plates as a guide in gynecological pathology. The preparation of specimens and the technic of micoscopical examination are first presented in the text, then the various conditions presented in the plates are described.

Dr. Jolly states the well known fact that gynecology is now beyond comprehension without the aid of microscopical diagnosis, and that the practitioner in diseases of women is only fully competent when he is master of the physiologic and pathologic histology of his subject. The writer also cals attention to the induction by Olshausen of curetment as a gynecologic operation. New, and in fact hitherto entirely unsuspected paths have been opened up in diagnosis and therapy by scraping away the mucous membrane of the uterus, thus permitting simple, sure recognition of the nature of the nature of the disease without danger to the structural composition of the lining of this organ. Thus diagnosis of the benign or malignant character of mucosal alteration is determinable. A cancer is easily recognized; abnormal hemorrhage may be referred to an endometritis or established as an obstetric phenomenon and sequel.

The printing and binding of the volume are of characteristic excellence of all the Rebman books.

♣ ♣ ♣

WHAT SHALL I EAT? A Manual of Rational Feeding by Dr. F. X. Gourand, Formerly Chief of the Laboratory of the Medical Faculty of Paris. With a Preface by Prof. Armand Gautier of Paris. Only Authorized Translation into the English Language. By Francis I. Rebman. Pages 379. Cloth, Price $1.50. Rebman Company, 1123 Broadway, New York.

This is an admirable work on dietetics. The style of the author is facile, succinct, and very readable. He gives an impartial survey of the burning questions of the day and, by advancing the arguments of opposing authorities, leaves it to the reader to arrive at his own conclusions.

His opinions on the questions of alcohol, white bread, and vegetarianism are interesting and worth studying, as they strike a keynote on these important factors of modern diet.

The striking feature of the book lies in its arrangement. The author gives for each article of food mentioned in the book the actions on the digestive functions, on assimilation, secretion, and elimination. This is important. He likewise gives the reasons why a food should be employed or rejected, according to the normal or pathological conditions of each individual case. Indications and rontra-indications are given in every instance, which makes the choice of food adapted to each case easy.

The book deserves a place on the five foot shelf of every medical man—in fact of every thinking, intelligent person in the land.

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

A Monthly Journal of Medicine and Surgery, Devoted to the Best Interests of the Whole Profession.

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We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Society news and reports and items of interest are gladly received.

VOL. 14 JUNE, 1911 No. 6

DR. SERVOSS' PROPOSITION.

(Continued from page 162)

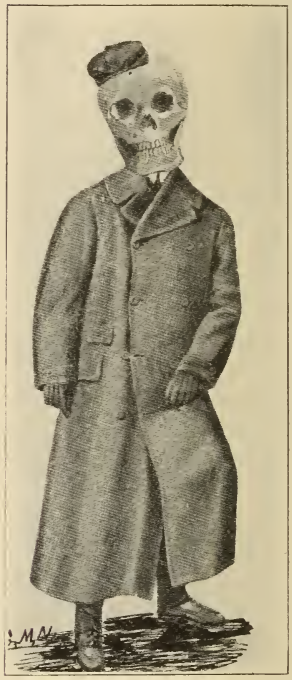
the subscribers are from twenty-one states, and that over forty are tolerably regular contributors. Are you able to submit articles to forty persons every month. If you don't treat all alike you may offend. Furthermore, it is not at all probable that one in ten would take the time or the trouble to scrutinize aricles. Few would feel competent to do. I confess I should shrink from attempting such a task.

I must say again, that Dr. Servoss is an exception.

D. L. FIELD, M. D.

A LONG WAIT.

Drawn by Grace Norris, M. D., Richfield Springs, New York.



Doctor (Who lights from his auto and suddenly appears in the door of his office)—"Which of you have waited the longest?"

Tailor (Absent minded, and thinks "Doc" refers to his debts)—"I've waited six months, and you haven't paid me a cent on that suit, yet."

♣ ♣ ♣

RUNDSCHAU.

(Continued from page 174)

wonder the spirit of dissatisfaction and unrest is growing in the land. Unless we succeed soon in reforming the administration of justice so that there really is only one law for all, our whole form of government stands in grave peril.

The Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, Devoted to the Best Interests of the Whole Profession

Vol. XIV JULY, 1911 No 7

SOME OF THE PRODUCTS OF BACTERIA

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

So far we have considered only the passive biology of bacteria, i. e., the effect their surroundings have on them. But they themselves also exert considerable influence on their surroundings and this constitutes the active biology. They seem to have power to produce both analytical and synthetic changes in their surroundings, and as Hueppe has pointed out, possess both anabolic and katabolic power to an extent possessed by no other living beings.

This may be partly due to the fact that in most cases they are almost or partly surrounded by their food substance, so that their metabolic products will accumulate to an extent unusual among other plants and animals. If a man, for instance, were confined to a single spot, surrounded on all sides by ample food material, so that life could be sustained indefinitely, his waste products would soon accumulate to an extent sufficient to produce changes in the food material, and eventually make life impossible. So it is with bacteria, either in their natural surroundings or on artificial cultures, with the additional feature that their numbers are constantly increasing at a rapid rate. The various products of bacteria are then nothing more than the unavoidable accumulations of the results of their life activities, together with such new substances as may be produced by the action of these products on the surrounding medium.

These various products can be classified under four headings:

1. Products which are elaborated within the bodies of the bacteria, and are necessary or useful to themselves. These may be called secretions, and are probably analogous with the secretions elaborated by higher animals and plants. They may be given out into the surrounding media during life, or retained within the cell-body, to be liberated only when death and disintegration takes place.

2. Products produced within the cell, but as a result of destructive metabolism, being unnecessary, even harmful to the bacteria when retained. These are waste products or excretions, and are analogous with the excretory products of higher beings. They are probably liberated into the surrounding medium as fast as formed.

3. Products created by the action of these secretions and excretions on the surrounding media; these may be called disintegration products, are formed in the media, and are purely accidental.

4. The cell substance of the bacteria themselves, which is synthetically built up from the food material.

We thus have four classes of products, two of which are built up or synthetized by the bacteria from their food material—the secretory products and the cell subbstance; the two others being analytical in their nature and produced by katabolic processes, the one formed within the bodies of the bacteria constituting the excretions; the other formed by the action of the excretions and secretions upon the sur-

rounding media, being the various disintegration products or the results of fermentation and putrefaction.

As to which of these classes the various products which we are familiar with belong to, is in some cases considerably in doubt, while in others the inference is clear. Such instances as indol, nitrites, carbon dioxide and other products analogous with the metabolic products of higher animals are undoubtedly produced within the surrounding media by the interaction between the proteids and carbohydrates of the media on the one hand, and certain substances liberated by the bacteria on the other hand. These latter may be likened to ferments by their action, but whether secretory or excretory products it is at present impossible to say.

The various processes of decomposition—fermentation of carbohydrates and putrefaction of proteids—are necessary to the welfare of the world at large, and constitute the true function of the saprophytic bacteria. It is therefore probable that the ferments, by means of which these processes are produced, are not accidental products or merely waste, but are elaborated by the bacteria for this purpose, and therefore, could tentatively at least be considered as secretions and not as excretions.

But in this process of putrefaction it is unavoidable that certain disintegration products be formed at first in the putrefying material. Eventually it will be totally destroyed, but at the beginning the nitrogenous materials form various new combinations, which exist for a while in the form of crystallizable salts of definite composition. These are the so-called ptomaines, which exist at the beginning of putrefactive changes, before the various ill-smelling gases of decomposition cause the material to become offensive and therefore unfit to eat. And therein lies the chief danger of eating old meat, cheese, milk, etc. Ptomaines may exist in fatal amounts in foods which is not yet in the least offensive to smell or even taste.

It is probably a wise provision of nature that the animal body contains even during life a number of these saprophylactic bacteria. Ptomaines are being continually produced in the tissues during the life of the animal, but are destroyed, or possibly in some cases put to some use or other, as fast as formed. But when death has taken place, and the metabolic activities are at a standstill, they will begin to accumulate until a poisonous amount is soon reached. And while sterilization or cooking will destroy the saprophytic bacteria which have produced the ptomaines, it will fail to destroy the ptomaines themselves, some of which are very stable bodies.

The ptomaines were the first bacterial poisons studied to any extent. As all of them are definite chemical bodies capable of crystallization and consequent production in a state of purity, this was not difficult. As a matter of fact they are organic bases resembling the vegetable alkaloids in structure and to a certain extent in physiological action. A large number have been isolated and described, among which may be mentioned tyrotoxicon from milk and cheese; neurine and neuridine from meat; muscarine and gadinine from fish; mytilotoxin from shell-fish; cadaverine and putrescine from human cadavers, etc. One of these, choline, seems to be produced quite regularly in the living body.

Coming to another class of products, however, the so-called toxins, more difficulty has been met with. It did not take long to discover that while the presence of ptomaines explained many cases of disease, another factor would have to be looked for to explain infectious diseases. We have to deal here, not with substances accidentally produced by the activities of harmless bacteria in their surroundings, but with actual products of the bacterial cell it-

self, whether secretory or excretory, however is not yet clear. Owing to the nature of these bodies, being of indefinite chemical composition, their study is not as easy as that of the ptomaines. They are more nearly related, to the proteins, probably the albumoses, as far as has been ascertained.

Two kinds of toxins have been noted, extracellular and intracellular. The first of these are usually referred to as toxins, and the second as endo-toxins. The extracellular toxins which we shall refer to as simply toxins hereafter, are produced by the bacteria during their life, and given off to the surrounding medium as fast as produced. If this surrounding medium be a living animal, the manifestations of a specific disease are produced. If the medium be artificial, the toxin accumulates in the medium and the disease may be produced by injecting the artificial culture. These toxins seem to have the property of producing anti-toxins in the serum of the animal, a property which is not apparently shared by the endo-toxins. The two extracellualr toxins which have been definitely obtained are diphtheria and tetanus toxins.

On the other hand a large number of endotoxins have been secured. These, as mentioned before, are not given off during the life of the bacteria, but are liberated on the death and disintegration of the organism. So while they may be metabolic products, it is more likely that the cell substance proper enters into their formation to a large extent. The endotoxins that have been secured up to this date are those of cholera, typhoid, colon, bubonic plague, pyocyaneus, streptococcus and staphylococcus.

There is still considerable doubt as to whether the pneumococcus produces a toxin or not. If so, it is undoubtedly an endotoxin, and the crisis of pneumonia could possibly be explained by the fact of a large number of bacteria being killed and disintegrated simultaneously, giving rise to the sudden high increase and consequent fall in temperature, by the liberation of large quantities of toxin.

As to whether the substances concerned in the manufacture of tuberculin and mallein are toxins or not cannot be stated definitely. Probably they are endotoxins, but research is needed on this point. These substances certainly do not act like toxins in all respects, and probably contain something of an antagonistic or neutralizing nature mixed with the true toxin, which would be unavoidable on account of the methods used in their manufacture. As it is the chief value of these preparations is from a diagnostic standpoint; their therapeutic use being still attended by more or less danger.

By Grace M. Norris, M. D.

"Say! Have you heard about Dr. Wood and Dr. Stone?"

"It seems they were going down the street when they met a lady wearing one of those harem gowns, and first Wood turned to Stone and then Stone turned to Wood, and then both turned to rubber."

ITCHING PILES

CHARLES J. DRUECK, M. D., 438 East Forty-Sixth Street, Chicago, Ill.

Surgeon to Lakeside and Emergency Hospitals and Rectal Surgeon to People's Hospital. Member of Illinois State and Chicago Medical Societies.

Pruritus ani is the name applied to any itching about the anus regardless of the cause, and may be a direct symptom of some local rectal disorder or a reflex manifestation of some other diseased pelvic or abdominal organ, or even a sign of serious systemic disturbance. The character or degree of itching may vary and includes all varieties of eczema. Sometimes the cause is discernible, while again it is quite obscure and in some instances there seems to be no apparent cause. The general practitioner often considers it a trifling ailment, although in old and aggravated cases it proves to be intractible and renders the patient's life almost unbearable.

It affects all classes of men and women, for it is found in all occupations and social conditions of life and occurs at any age, but is more common in males and about middle age. The itching is usually constant, with exacerbations, especially at night, when the patient's body becomes warm in bed, and is not limited to the anus, but radiates down the limbs, over the buttocks and across the perineum to the urinary organs. Scratching and rubbing the parts gives only temporary relief and leaves after effects, such as bleeding, cracks and fissures, which add to the annoyance. In the majority of cases pruritus is simply a symptom of some other rectal or pelvic trouble and may therefore refer to any neighboring organ, although it is usually due to hyperesthesia of the nerve filaments.

ETIOLOGY.

The causes are many and sometimes very difficult to ascertain, but usually when found and removed the pruritus will be cured at once. Sometimes nothing can be found to explain the itching. Various local and constitutional conditions or habits are at times the cause, or, occasionally, neurotic affections, diabetes, portal congestion, syphilis, rheumatism, albuminuria, or a gouty tendency. Threadworms are frequently the source in children, but rarely in adults, and can easily be found in the folds of the mucous membrane of the rectum as short fibers resembling pieces of thread. Chronic prostatitis, proctitis, impacted feces, chronic constipation and errors of diet are each at times the source. Hemorrhoids, either internal or external, ulcerations, a beginning fissure, prolapse, polypus, fistula in any variety may be an underlying cause. In women it occurs with pruritus vulvae during menstruation and early during pregnency, or in the last few weeks of gestation when the perineum is congested and edematous.

Certain articles of food frequently produce the pruritus, as shell-fish, salmon, venison, strawberries, coffee or the over use of meats and spices. In fact, rich diet or excess of alcohol and tobacco may cause it. When a fistula is present, though the skin opening may be pin-point in size, still the discharge as it evaporates leaves a crust which occasions the itching. Pediculi also, by their presence and excretions act in the same way. Herpes, erythema in fleshy people from chafing and sweating of the buttocks in walking, and eczema, either acute or chronic, are each occasionally the cause of pruritus. In eczema marginata the spores may be found by the microscope in scales scraped off and moistened in glycerin. Incontinence of urine in either children or old people is many times a cause.

SYMPTOMS.

The predominant symptom is the unbearable itching, which grows worse with warmth and rubbing of the parts. Scratching, which is sometimes controlled when the sufferer is awake, is unconsciously performed when he is asleep and causes bleeding and abrasions of the skin, which serve to make the conditions more painful the next day. In recent cases there is often nothing to see or there may be red, glistening, perhaps edematous condition of the parts with scant serous secretion, enough to keep the skin moist. In old cases the skin becomes thick, pale and parchment-like, sometimes even brownish, especially back of the anus and toward the coccyx in the intergluteal space, and the whole surface is eroded and fissured. In protracted cases the patient's general health and nutrition fail from prolonged insomnia and nervous wear and he becomes a hypochondr'ac.

DIAGNOSIS.

Pruritus is easily diagnosed from the patient's history and then corroborated by the examination. The patient in the lithotomy or Sims position affords easy inspection of the whole field. The presence of syphilis, tuberculosis, and especially rheumatism as an underlying dyscrasia, must always be investigated in obscure cases, because this fact alters the treatment.

PROGNOSIS.

Without careful attention the outlook is very poor. Periods of improvement are quickly followed by exacerbations worse than the preceding. The itching and pain, together with the loss of sleep, bring the sufferers to the verge of nervous prostration or insanity if they have not already become opium wrecks. A patient told me that he had not had a day's peace or a comfortable night's rest in a year. He could do no business, looked and felt as though he was in the last stage of phthisis, and vowed unless I could help him he would commit suicide.

Under careful, persistent treatment you may look for a favorable future, provided the cause may be removed. The patient, however, must be told that unless the cause is purely local the treatment requires time and perserverance on his part.

TREATMENT.

The treatment depends, first, upon the cause, for with that removed the pruritus will usually disappear. Sometimes the cause is very trivial. I remember seeing a severe pruritus that had resisted treatment by two physicians that was due to a few inverted hairs. These were removed, the follicles destroyed and a sedative dusting powder used. The trouble healed kindly and has since never bothered the patient, who is himself a physician. If there is no apparent local cause, examine the patient's general condition. When anemia or tuberculosis is present, alteratives and tonics like arsenic, iron, codliver oil and quinine are indicated, also nux vomica for its tonic effect, both systemic and intestinal. The tonic value of exercise must be remembered and its importance impressed upon the patient. The diet is to be looked into and excesses cut off, as coffee, alcohol, tobacco and the over use of meats, spices and condiments, and also highly seasoned sauces or game. When the gastric digestion is impaired, pepsin, diastase or mineral acids may be needed. In the lower digestion the bowel or liver may need attention. The genito-urinary systems in both male and female patients must be given a thorough examination and the physician satisfied that there is nothing abnormal about these organs which might maintain a reflex excitation. The condition of the stool should be inquired into and if constipation exists the bowel should be emptied thoroughly by a saline laxative or rhubarb, after which they

should be moved daily. Aloes is contraindicated as a laxative, because of its irritating effect on the rectum. The use of intestinal antiseptics, such as salol, sulphocarbolates and ichthyol, five grains of the latter given night and morning, on an empty stomach, is useful to clear up the autointoxication. Intestinal lavage, with large quantities of weak, alkaline solutions, is of inestimable ble value in clearing out the bowel and stimulating intestinal action (the details of lavage will be considered at another time in a paper on constipation and autointoxication, because of lack of space in this article).

Syphilis occasionally produces a pruritus and eczema about the anus, but a thorough course of mercury and the iodides will remove it. If due to lithemia, the salicylates and alkalies should be freely given. As the itching is always worse in bed and while the patient is resting, the use of pajama night suits must be replaced by a cotton gown, which is loose and does not touch the perineum. The pajamas by fitting closely increase the production of moisture and increase the chafing. Cotton sheets should be worn on the bed ond heavy quilts replaced by wool blankets which permit a more even temperature and thus prevent sweating.

LOCAL TREATMENT.

Locally the treatment divides itself into cleanliness, keeping the parts dry, maintaining rest by preventing friction between the sides, and relieving sphincteric spasm. Scrupulous cleanliness during the local toilet is imperative. The matter of toilet papers is important. Adler calls attention to the fact that harsh papers and ordinary newspaper, because of the printers ink often causes a pruritus. A patient, whom the writer attended, presented a very obstinate case of pruritus that persistently recurred until it was discovered that the sufferer used as toilet paper the tissue paper which had been wrapped around oranges and lemons. When this practice was stopped and a little local treatment given, the trouble disappeared and has never returned. Where contact of the feces produces pruritus, the ordinary use of toilet paper is not sufficient to remove all of the small particles and pledgets of cotton moistened in warm water are much more efficient. The addition of sodium borate or bicarbonate to the water is often of value.

In conjunction with the local applications to be described later I have made it an almost routine practice whether the cause is evident or not, to gradually but thoroughly dilate the sphincter. There is always present a hypersensitiveness of the anal mucous membrane or an hypertrophy of the sphincter muscle, both of which conditions are relieved by this procedure. The dilation is performed slowly and without an anesthetic. By frequent moderate stretchings I overcome the hyperesthesia and abnormal resistance and in that way relieve the constipation that occurs from prolonged retention of the feces. This also relieves the tenesmus that is set up and which keeps the skin under tension and helps to make defecation painful. It has been advised to perform the dilation under chloroform, but I do not employ that method, because whenever you dilate forcibly there is danger of incontinence resulting, which will be more or less permanent. This mishap is never possible when the dilation is performed by my method.

The local application of astringents and ointments, as acetate of lead or zinc, zinc oxide, carbolic acid, chloroform (a dram to the ounce of olive oil), bismuth or mercury may be tried, but with varying success unless the predisposing cause is removed. Opium is to be used very advisedly because of the possibility of inducing the habit and because the secondary effect of the drug is to produce a general itching. I have found mutton suet and diachylon ointment

preferable to other emollients. The following formula I have frequently used to give temporary relief while treating the underlying cause:

℞ Camphorae
Chloral hydratis .....drams 1
Ung. diachylon .....ounce 1

This may be applied two or three times daily after bathing the parts. Much immediate relief is obtained by brushing the surface with nitrate of silver, twenty grains to the ounce, or with Churchill tincture of iodine, twice a week. Both applications produce some temporary pain, but the relief afterward fully compensates for the suffering.

When the pruritus is due to thread worms, injections of lime water or salt water are sufficient or, in severe cases, an anthelmintic as santonin. Occasionally this procedure needs to be repeated. When due to vaginal discharges douches of 1 to 2000 mercuric chloride or two per cent lysol, should be used twice daily. In infants, when due to lack of attention during an attack of diarrhea or to fermentation of urine about the parts, I have found picric acid, ten per cent in nitrate of mercury ointment, gives the best results.

Eczema in all its various forms is frequently a cause. If the skin is dry and scaly much benefit is derived from tar preparations. Bathe the parts with a solution of alcohol and tar water or use an ointment as

℞ Picis liquidae .....drams 4
Ung. belladonnae .....drams 2
Ac. carbolici .....m 10
Adeps lanae .....drams 2

Bathe the parts repeatedly in water as hot as can be borne and in green soap, to remove the thickened scales and to deplete the local circulation. In exaggerated cases, a solution of caustic potash five grains to the ounce, may be used. A cloth may be used to sop the hot water on the parts, but do not allow any rubbing. This treatment on retiring will often insure a restful sleep for an otherwise tortured patient.

In the moist variety of eczema and in erythema, soothing applications such as calomel, bismuth, boric acid, starch or zinc oxide powders may be dusted on the parts and a piece of lint or muslin inserted between the buttocks. The following, as an ointment, has acted admirably in many of these cases.

℞ Thymol .....gr. 2
Pulv. zinc. sterat .....dram 4

When the patient is about to indulge in excessive exercise, work or walking, especially an obese object, where he is likely to aggravate the condition, he should apply the above ointment before the effort and bathe the parts promptly afterward with cold water, being careful to dry the parts thoroughly. Frequent ablutions of cold water give much temporary relief in these cases. For fleshy individuals and others who perspire freely and are liable to chafe, carbolic acid solution ½ per cent, or potassium permanganate 1 to 5000, is an admirable lotion to be used daily with the toilet.

In eczema marginata, bathe the parts thoroughly with warm water and soap, dry carefully with a soft cloth and then apply dilute sulphuric acid. It is painful for a short while, but gives immediate relief. Tincture of iodine may be used. In purely neurasthenic cases local treatment is of no use and the patient is better off without it. Moral and hygienic instruction are much more needed and in some instances straight talk, as Morris (British Medical Journal) calls it, will do more than all the drugs. In severe cases or when the pruritus is due to disease of the brain, spinal cord or their membranes, it may be necessary to give the patient a narcotic to enable him to sleep. Succus coni, one dram given three times daily is efficacious. Bromide or chloral is preferable to

opium, as the latter causes more itching the next day.

Recently the Roentgen ray has been used in the treatment of pruritus and eczema about these parts, but the work in many instances has been done by enthusiasts and its value over estimated. Very often, but not always, the X ray acts almost magically, but there is always the danger of possible burns even in the hands of an expert, and this danger is increased if the treatment is continued over a long period of time. It has also been found that azoospermia may be induced unless the Roentgen ray is used very guardedly to limit the action of the light to the skin only. A fifteen minute treatment every other day for two weeks ought to show results by relieving the itching and by increasing the discoloration of the skin. A tube of low vacuum is held about ten inches from the patient. The surrounding parts are to be protected by lead sheet and no application or ointment containing metallic salts are to be used at any time during this treatment. Nothing is worse than the empirical use of any agent and it is folly to use the X-ray on every case, without first finding the cause of the itching. The X-ray will prove a valuable assistant, however, if its use is limited to cases of unknown origin or those that prove themselves especially obstinate and where relief alone is desired. A cure can not be expected even with the use of the X-ray, unless the cause is removed. Should a cure occur, it will be only temporary if the exciting cause is allowed to remain.

When the pruritus is due to proctitis, hemorrhoids, fissure, ulceration, fistula, prolapse or polypus and the patient refuses to submit to surgical treatment or in senile, debiliated or hemorrhagic subjects, much relief may be given by the use of the following:

℞ Calomel .....gr. 30
Menthol .....gr. 10 to 20
Vaseline .....oz. 1

Sign. Apply after each bowel movement, bathing the surface carefully before sopping it dry.

If there is much pain, cocaine hydrochlorate, grains ten, may be substituted (Matthews). The use of unguentum gallae or tincture of iodine will relieve the itching when hemorrhoids are the cause. These formulae have given me much satisfaction in a general way but must be altered to suit each case. Finally, there remains a class of cases in which the pruritus persists in spite of all therapeutic treatment and where there is no apparent cause, either local or systemic. In these instances the actual cautery applied lightly all over the irritated surface will at times effect a cure.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 152 June Recorder)

How They Died.

During the celebration and procession of the pagans, their idolatrous images so incensed Timothy, that he rushed into their midst to stop their blasphemous conduct, when they siezed him, and with their clubs beat him unmercifully, that he soon expired.

Titus, who became bishop of the island of Crete, lived and preached till he died at the age of 94 years.

John Mark, a disciple of Bartholomew, and his cousin, was the son of a Christian mother, at whose house in Jerusalem the apostles used to meet. He was greatly beloved by the apostles, and Paul enlisted his services in the evangelistic field. He performed signal service to Paul during the two years imprisonment of Apostle to the Gentiles. It is supposed he died at Ephesus.

Clement, of whom St. Paul said "His name is written in the Book of Life." He succeeded to the government of the Church at Rome, after the death of Paul. It was said that Peter ordined him bishop at Rome; and while he lived there unmolested during the persecutions under Domitian; yet he was put to death by Emperor Trajan.

St. Paul, the greatest apostle was tried and condemned to prison by Nero, at his first trial, and he said then, that "all men forsook me." Nero, returning later from a vist to Greece, had become exceedingly bitter against Christians, and ordered the execution of Paul by decapitation. He was lead out about three miles from Rome and there beheaded.

In accordance with St. Peter's desire, he was crucified in Rome. Tradition has it that he asked to be crucified head downward; as not feeling worthy to die as the Master did.

St. James, or as he was called, James the Great, to contra-distinguish him from James, the Less, was the brother of John, the evangelist, and one of the Lord's apostles. He was the son of Zebedee, and Salome, and was a fisherman. The bible says: Herod had "James, the brother of John, killed by a sword."

James, the Less, was persecuted and stoned to death. History says, he was commanded by one Annanias to go up on one of the galleries and publicly renounce Christ. He went up, but instead of doing as commanded, he declared in a loud voice that "Jesus of Nazareth was the Messiah." He was thrown over the battlements, and being severely bruised, he prayed to God for the persecutors, when they hurled down stones upon him till he died. Many Jews attributed their subsequent calamities to the murder of the two Jameses.

Zedekiah, the last of the Kings of Judah, was taken to Babylon, imprisoned, his eyes put out, where he languished for years, and died. While Zedekiah suffered a very cruel death, he was cruel in his persecutions of the prophet Jeremiah whom he kept in a dungeon for a long time.

According to profane history King Agrippa died in greatest agony from intestinal disease.

Herod the Great died after long suffering from organic heart disease, and general dropsy. He was such a sufferer that he attempted suicide, but his attempt was thwated.

Herod, the Tetrarch, was summoned to Rome, tried, and imprisoned in Spain, where he and Heroditas died. His wife chose to suffer imprisonment with him.

Pontias Pilate was also sentenced to life imprisonment in Spain, whose history says he committed suicide.

Ahat was slain in battle. The account says he was shot through with an arrow, and the dogs licked up his blood.

Joram and Ahaaziah the Kings of Judah and Israel, learned that Jesus was

coming and they went out to meet him. Joram asked, "Is it peace, Jehu?" Jehu drew his bow and sent an arrow through his heart, when he sank down in his chariot and died. Ahaziah fled for his life, but was overtaken and mortally wounded. But with failing strength he continued his flight till he reahed Megiddo, where he died.

In the "Antiquity of the Jews" by Jesephus, he says John, the Baptist, was beheaded in the town of Antonio, but says nothing about his head having been brought to Herodias on a charger. That he was beheaded at the demand from Herod's wife, as a revenge for condemning Herod's marriage, is acknowledged; and the historian also says calamities came upon Herod for the crime of taking the life of that holy man.

He also says that Moses delivered a long farewell address to the Children of Israel, which caused great lamentations among them, after which accompanied by his brother, Aaron, Joshua, and others, a cloud stood over him, and he disappeared from view. His burying is not known.

Aaron was stripped of his priestly robes, and they were placed on Eleazer. Because Moses became angry at Aaron on finding he had allowed the Israelites to return to idolatry during his absence on Sinai, and throwing down the tables of the law, breaking to pieces, which made it necessary to go back for the law again; and for Aaron's disobedience, neither were allowed to enter the promised land. Aaron, old, humiliated, and broken hearted, laid himself down on Mt. Hor and died.

Joshua took command of the army of Israel, and commanded them 25 years, and died at 110 years of age. Moses was 120, and Aaron 118 years of age at death. Joshua was given an inheritance of land, where he built a home. He wrote immediately to the Israelites, exhorting them to forsake idolatry, and serve God.

Mannassch died from sunstroke. The record says the sun's heat fell upon his head, so that he died.

Josephus says: "Returning to the death of King Agrippa, that before his death, he said: 'I, whom you called a god, am presently to depart this life. I, whom you have called immortal, am immediately to be hurried away by death. I am bound to accept what Providence allots, as it pleases God. We have by no means lived ill; but in a splendid and happy manner.' "

When he had thus spoken, his pains were so great that he was carried into his palace, where he lingered five days in great agony and expired.

Jesus, a robber bandit; Jesus, the son of Fabis, a precurator; Jesus, the son of Sic; Jesus, the son of Damneus; and Jesus the son of Gamaliel.

Albinus succeeded Festus; and Jewish history (Josephus) says: "Now Albinus assembled the Sanhedrum of Judges, and brought before them the brother of Jesus, who was called Christ, whose name was James, and some of his companions, and when he had formed an accusation against them, as breakers of the law, he delivered them to be stoned.

Saul and Jonathon were slain in battle with the Philistines; and the day after, they were stripped of their armour and fstened to the walls of Bathsham. Their friends recovered their bodies by night and burnt them. Their ashes were buried under a tree at Jabesh.

Nero committed suicide to escape being put to death by order of the Roman Senate.

Samuel lived to a ripe old age, and died from senility. Like Moses, he was not only of great stature, but robust also. While Agag was a strong man, Samuel "hewed him to pieces." Agag was King of the Amelekites.

King Saul, the first King of Israel, who was a cruel monarch. In a battle with the Philistines, he was routed;

and fleeing for his life, for fear he would fall into the hands of the enemy he begged his armour-bearer to kill him, and he refusing, he fell on his sword, and died. After his death the Philistines found his body, and cut off his head, and fastened his body to the wall of Both-Shan.

Shimei, a kinsman of Saul, who was in sympathy with Absalom in his rebellion against his father, David, met the King, cursed him, and threw stones at him. Abishai, who was with David, asked to be allowed to him; but David forbade him. Shemei was a powerful chieftain; for he had a retinue of a thousand men, with fifteen sons, and twenty servants. When Solomon became king, he commanded Shimai to stay within the walls of Jerusalem the balance of his days; and if he didn't do so, he should be put to death. He accepted the conditions, saying: "As the King sayeth, so will I do." Three years after, he went to recover two servants who deserted him; and Solomon being apprised of the violation of the vows given, and his injunction, ordered his executioner to put him to death.

The latter years of Solomon's life were characterized by bad conduct in taking unto himself heathen and idolatrous wives. He apostised, and erected idols for worship; but finally repented and it was then he wrote Ecclesiastes. He was but eighteen years old when he became king and reigned forty years, dying of physical infirmity, at the early age of that time, of 58 years.

Stephen was among the earliest martyrs. He was brought before the Sanhedrum, where he was accused by several witness. He openly rebuked them, and boldly said: "Ye have been the betrayers and murderers of the holy, and the just." They were cut to the heart, gnashed their teeth upon him. He was undaunted, however, though knowing they had murder in their hearts. As he proceeded they stopped their ears, and ran upon him, dragging him out of the city, with great violence, and stoned him to death. He was one of the first deacons of the Church.

Sisera, the Commander of the Army under the King of Canaan, was defeated by the Army under Barok, Commander under Deborah. He fled from Barak, and took refuge in the tent of Hober, and his wife Jael. Feeling secure, and brave, he fell asleep, when Jael drove a nail into his temple, killing him.

King Zachariah, because he did that which was evil in the sight of the Lord, a conspiracy was formed, and he was murdered.

Zechariah, a high priest, who charged idolatry and wickedness upon Joash the King, was ordered by the King to be stoned to death in the court of the house of the Lord.

Gideon was the father of seventy sons; for he had many wives. A secondary wife, being the mother of one Abindech, (which by the way was a common name among the Hebrews) and knowing the law of the inheritance, and being ambitious that her son should be king, she helped organize a conspiracy among the men of Sheckem; and all the sons of Gideon were slain save Jotham, who hid himself, and escaped the massacre. The illegitimate Abinidech usurped the throne.

A woman in the city Abel, proposed to Joab if he would raise the siege of the city she would have Sheba killed, and his body thrown over the wall. The promise was accepted.

The Abinedech who usurped the office of king, was killed at Thebes, by a stone thrown down upon him by a woman.

The wife of the prophet Ezekiel died suddenly when the prophet declared that their city was to be destroyed by the Chaldeans.

Jeptha's daughter's death was the most pathetic. Jeptha foolishly and

wickedly made a vow to the Lord: "If thou shalt, without fail, deliver the Children of Ammen into my hands, then it shall be that whatsoever cometh out of my house to meet me when I return in peace, shall surely be the Lord's; and I will offer it for a burnt offering." When he met his daughter, he was overcome, but she bravely answered him: "My father, if thou hast opened thy mouth unto the Lord, do to me according to that which has proceeded out of thy mouth." She yielded herself as a sacrifice.

The history of Adonijah, the fourth son of King David, is a sad one. He organized a conspiracy to succeed his father, but when Solomon was given the kingdom Adonijah and his followers dispursed; and at the instance of Nathan and Bath-Sheba, the mother of Solomon, he was forgiven. He was ordered by the King to retire to his own house. Afterward, Adonijah set his heart upon the beautiful young woman who had charge of the last years of David's life. He desired her for his wife; and brought his mother to intercede for him. Solomon suspected this to be a project to obtain his kingdom, and ordered his executioner, Beraiah, to kill him, which he did.

Annon, the eldest son of David by his second wife, was slain by order of his brother Absolom.

Amon, son of Mamasah, became king and reigned but two years. He was very wicked; and like his father, an idolater. His conduct grew worse and worse, and his servants murdered him in his own house.

Archelanus who reigned in Judea, who succeeded his father, Herod, was a cruel monster. When he had governed about seven years, with violence and tyranny, he was accused by the Jews and ordered to Rome for trial. He was banished to Vienna to prison, where he remained until death.

Balaam joined with the enemies of Israel, and in a battle between them, a great number of people, five princes, and Balaam himself were killed.

As the readers may know, Belschazzar, who was the grand-son of Nebuchadnezzar, and the last king of Babylon, was slain by the soldiers of Cyrus.

The career of Benadad, King of Syria, who made war on Ahab, but was defeated. When he proposed war on Israel, there were thirty tributary chieftains, or kings associated with him: In "Kings" it is stated that he besieged Samaria. Camping with his vast army near the capitol of Ahab's kingdom, he sent messengers to Ahab saying: "Thy silver and thy gold are mine; thy wives also; and thy children; even the good list, are mine."

Ahab replied: "My Lord, O King; according to thy saying; all that I have is thine; and I am thine." The Israelites said: "Hearken not unto him; nor consent."'

When Benadad heard that the people resented his insolent proposal, he said: "The gods do so to me; and more also; if the dust of the city shall suffice for the handful of all the people that follow me." Ahab made the famous answer: "Let not him that girdeth on his armour, boast himself as he that putteth it off." The battle resulted in the killing of a hundred thousand of the Syrian army. Benadad hid himself, while his servants begged for his life; which was granted. Ahab restored him his crown. He made war on Israel twelve years later, but being beaten, fled. A few months after Benadad sent a servant to Elisha to ask if he would rcover from a disease he had. The servant's name was Hazeal. He was assured he would die of the disease, but the prophet said Hazeal would be the murderer of Benadad. He returned to the king's palace and the next day he took a cloth and smothered Benadad to death, and Hazeal reigned in his stead.

The Darius who as king of the Medes

and by whom Daniel was put in the lions den, became king at 62 years of age, and reigned only two years. He was succeeded by Cyrus, the Mede, who was his uncle.

Another Darius who got the throne of Persia, by the murder of the king; was also slain in his palace with all his house, when Alexander conquered Babylon. This also was according to the prophecies of Daniel.

Dyonysius, and a woman of note, named Demetrius, converts by Paul at Athens, went into the evangelistic field, and soon suffered martyrdom for Christ. Dyonysius was a learned Judge in Athens.

Drusilla, the youngest sister of Agrippa, and Bernice, was the wife of Azezus. Felix persuaded her to forsake her husband and marry him. She did so, and we have an account of her in the New Testament, as the wife of Felix. She heard Paul argue before Felix of "righteousness, temperance and judgment to come." She was a Jewess, and by Felix she had a son, who was destroyed in Pompeii by the eruption of Vesuvius.

Eglon was the king of Moab, and the immediate successor of Balak.

In "Judges" it says: "And the Children of Israel did evil again in the sight of the Lord; and the Lord strengthened Eglon, the king of Moab, against Israel, because they had done evil in the sight of the Lord." The Israelites were punished, but in answer to their persistent prayers, he raised up a deliverer in the person of Ehud, a Benjaminite. The Israelites sent a present to Eglon, by Ehud. He pretended he had an important message for him, which must be delivered in private. All his attendants were sent out of the room. Ehud approached the king, and drew a dagger, and thrust it into Eglon, who died almost instantly. Ehud fled to Mt. Ephram, and collecting an army, he slew thousands of the Army of Eglon. Afterward he judged Israel till he died, and Deborah succeeded him as Judge, and the Israelites had peace for eighty years.

Elah reigned over Israel but two years, when he was murdered by his servant Zimri, while drinking himself drunk, in the house of Arzah, his steward. The manner in which he was murdered is not known; as history merely says he was drunk, and his murder was not difficult to accomplish.

When Benadad besieged Samaria and cut off their supplies of provisions, the unclean head of an unclean animal was sold for about twenty dollars, and thousands were starving, children w[illegible] en. The king attributed the calamities to Elisha, and determined he should die. He sent a mesesnger to kill him, but King Jehoram was foiled.

Later Elisha went to Damascus to appoint Hazael king of Syria, as Elisha had directed him to do.

We know how Benadad was smothered to death by Hazael, and that he ascended to the throne. The work of Elisha being about done, he was taken very sick of the disease of which he died. During his illness, Joash, the King of Israel came down to see him, and wept. He looked upon the pale form of the dying prophet, till he died.

How long Elizabeth, the mother of John the Baptist, lived after John was born, we do not know; but she died before he began his ministry, so that she did not witness the sorrows that fell to the lot of her cousin, the mother of Christ. Nor did she live to mourn the cruel deed of Herod, in beheading that saint.

Acording to tradition Eve didn't live long after the murder of her affectionate son Abel; but died long before Adam did. History says the killing of Abel was like a dagger to her heart.

Herod, the great, to finish what I said of him previously, died a most wretched

death. The disease was a most painful and loathsome one. He tried to plunge a dagger in his heart, but was prevented by his attendants. Becoming wild from the malady, his last acts were especially cruel. He had forty young men burnt alive for committing an offense. He shut the principal men of the kingdom in a prison, and gave orders that they should be executed the moment he died. He died at 70 years of age, and reigned thirty-seven years. He was father of 15 children, and had 10 wives. He was succeeded by his son Aschelaus; with Philip and Herod Antipas, and precurators.

Hashia murdered Pekah, King of Israel, and succeeded in setting himself on the throne. The Assyrians opposing them, he enlisted help of the king of Egypt to drive off the Assyrians. The war continued three years, and Hashea was defeated and killed. The Assyrian King, Shalmanezer, barbarously slew women and children, and removed the Israelites beyond the Euphrates; thus ending the government of the ten tribes.

It is related in history that the great prophet Isaiah became very old, and dying, was buried in Jerusalem under the Fullers Oak, near the pool of Salaam; and that his body was afterward removed to a point near the source of the Jordan; and finally was removed to Constantinople.

Other historians, and perhaps it is authentic, say that he went barefoot, and almost naked for three years; and after prophesying about 60 years, he was put to death.

Ishbosheth was the son of Saul, and his successor on the throne of Israel. David's son Abner got up a plan to transfer the kingdom of Ishbosheth, with all its interests to his father David. Ishbosheth went into his chamber about noon to rest and sleep; when two of his captains went stealthily into his room, and murdered him, making their escape with the head of the murdered king to David. He, instead of lauding them, as they expected, accused them of a great crime. He ordered them put to death, which was done; and cutting off their heads and feet, their bodies were hung up over the pool of Hebron, and the head of the murdered king was buried in the tomb of the fallen Abner. With his death the rule of Saul ended in Israel.

There are two Ishmaels in holy writ: Ishmael, the son of Hagar, was 13 years old when Isaac was born; but when Isaac was four or five years old, his mother saw Ishmael mocking her son Isaac, and she had Hagar and her son driven from her roof.

Ishmael became the founder of the Arabian Nation, and died at the age of one hundred and thirty-seven years, surrounded by his friends, and in the presence of his brethren.

The other Ishmael was one of the royal family of Judah. He was sent by the king of the Ammonites to murder Gedaliah, the deputy governor of the Jews who were left in Canaan, after the captivity. Gadaliah was filling that office at the direction of Nebuchadnezzar. Ishmael was admitted with several others, by the unsuspecting governor, and were enjoying a repast with him, when Ishmael rose up, with the men who were with him, and murdered Gadaliah, and other Jews and Chaldeans who were associated with him.

Jacob was an aged and venerable man when he went to Egypt to see his son Joseph. Pharaoh asked the question. "How old art thou?" Jacob replied: "The days of the years of my life are a hundred and thirty years; few and evil have the days of my life been, and have not attained unto the days of the years of my fathers in the days of their pilgrimage." He blessed all his children, each separately, before he died. Having furnished his blessings, he gathered his feet into the bed, and died. Joseph had his body

embalmed, and carried it into the land of Canaan, and buried it in the cave of Machphelah, beside his wife, Leah. In all the burying places in the world there are none which contain such persons so honored of God, as Abraham and Sarah; Isaac and Rebenah; Jacob and Leah.

Jehoiakim became King of Israel at twenty-five years of age. From the prophecies of Jeremiah, we learn of his cruelty and avarice. He hated the prophets of the Lord. Urijah was one, who fled into Egypt to escape him; but he sent troops there and brought him back and the king slew him with a sword, and cast his body into the potters field. In the fourth year of his reign, a copy of Jeremiah's prophecy against him was brought to him, and he cut it up with a knife and burnt it. Becoming enraged against the prophet, and would have put him to death, but the Lord kept Jeremiah out of his way. Jeremiah was finally taken by Nebuchadnezzar to Babylon, where he was put to death and his body thrown into a common sewer. Johoiakim had no son to reign after him; as holy writ says: "He shall have none to sit upon the throne of David, or rule any more in Judah."

♣ ♣ ♣

TESTICULAR SUBSTANCE

By J. A. BURNETT, M. D.

A few of the synonyms and trade names for testicular substance are as follows: orchic or orchitic substance or extract, orchidin, opoorchidin, testadon, teston and didymin. We have an account of the testicles being used as medicine as far back as 1685 and at that date being recommended as curing all diseases of the head, brain and nerves, also for curing impotence and many other conditions. It would be natural to suppose that any remedy like testicular substance that has been used for 2226 years would be most likely to possess some reliable therapeutic uses as physicians for several generations are not likely to be entirely mistaken regarding the action of a remedy. There are various preparations of the testicles of various animals of various ages. Some are reliable , some are worthless. And as we have no uniform preparation it would be natural to suppose that results would vary to a great extent same as any other preparation. In order to get uniform results from testicular substance we should have a uniform preparation always prepared the same way from the same kind of animals of about the same age. I am inclined to think that the bull and goat would be the best animals to obtain specimens from and inclined to think the testicles should be removed after the animals have reached the age of pubrty. The bull and goat are animals that eat clean food and have large testicles that should not make the remedy very expensive. Likely the boar and ram would be the next best animals to obtain testicles from. When we consider the difference in the nature of different animals, the difference in their food and their flesh as food the difference in various animals in immunity to certain diseases and their immunity against certain poisons, etc., we are compelled to admit that it is not likely that testicular substance from the various animals used have just the same influence. The goat is immune against tobacco poison and can eat it as a food if desired. It is stated that the hog is immune to nux vomica and its alkaloids. I do not know this to be true and hope it will be investigated and the truth

ascertained regarding it. Recently I have seen the statement made in a medical journal that hogs lard was an antidote to nux vomica and its alkaloids. and that it was discovered by trying to poison dogs by giving them strychnine in hogs lard and it would not kill them but when given without the lard would kill them. It is an established fact based on clinical experience that a reliable preparation of testicular substance is of great value in the treatment of many diseased conditions. In neurasthenia, sexual losses and the attendant mental symptoms the use of testicular substance affords very gratifying results. It is also of great value in sterility and kindred conditions and if desired can be used in connection with yohimbin. In arrested growth or undeveloped boys at or before the age of puberty testicular substance can be used with good results. I believe its tonic influence is beneficial in debilitated conditions in females of all ages and of value in general undevelopment or retarded growth of girl children and especially those of a very feminine type and lack self confidence. In 1896 Zoth and Pregel (Pfluger's Arch. 1896) claimed that beyond all doubt that testicular substance diminishes muscular and nervous fatigue which is evidence of its influence as a tonic in depressed conditions. Potter speaks of testicular substance being used in general adynymia, anemia, atonic gastro-intestinal affections, scurvy, malaria, epilepsy, cancer, nymphomania, perverted sexual habits, impotence, neurasthenia, hysteria, melancholia, diabetes, tuberculosis, hemiplegia, paraysis agitans and locomotor ataxia with more or less benefit. The success of testicular substance in anemia as well as many other conditions depends upon it being rich in nuclein. Patta claimed that testicular substance increases arterial pressure. In the Brit. Med. Jour. Jan. 2, 1904, G. L. Roberts reported favorable results in the treatment of exophthalmic goitre with testicular substance. We need a reliable preparation of testicular substance for hypodermic use .

D'Arsonval, the assistant of Brown-Sequard claimed that general paralysis, locomotor ataxia, contractures and certain forms of insanity and affections due to organic lesions of the nervous system of impairment of its functions are cured or ameliorated by injections of testicular juice and that organic or constitutional diseases due to defective nutrition of the organs as anemia, glycosuria and tuberculosis may be arrested by this same procedure.

D'Arsonval prepared an emulsion of testicular substance which was complex but supposed to contain at least four active principles, viz.: phosphorized albumins, lecithin which is also known as phosphorized fat, spermine, and nuclein.

The process of preparing D'Arsonval's emulsion is given on page 134, Potters Materia Medica Pharmacy and Therapeutics, 10th Ed. It was used hypodermically in 10 to 20 minim doses once every day or every other day. It had little or no effect when given by mouth but was efficient when used by rectum. In the Int. Med. Mag. Nov. 1900, D. J. McCarthy reports good results in the treatment of tabes dorsalis and sclerotic diseases with testicular substance.

Potter does not speak very favorably of testicular substance and says: "Later clinical results have not confirmed the claims made for it and it is now rarely used in medicine."

I am fully satisfied and think all will agree with me that in many cases the poor results with this agent is due to a poor and unreliable preparation being used. I hope this will stimulate investigation and this important remedy not be allowed to drop into oblivion.

WHAT IS DISEASE?

By J. L. WOLFE, M. D., Cedar Falls, Iowa

Disease consists essentially, in diminished vital power. Symptoms do not constitute disease. They are the immediate consequences of diminished vital power, or disease, or they may arise from the restoring efforts of the constitution. Thus, the first symptom in disease as languor and debility, coldness of the surface and chilliness, are the immediate effects of a loss of vital power whereas, when reaction takes place, many of the accompanying symptoms, as fever, pain, inflammation, vomiting, diarrhea and convulsions, are the consequences of the vital force resisting the cause of disease, the most fatal cause of disease, are those unattended by fever; for instance in small pox and scarlet fever, the specific poison producing the disease, operates in some cases, with such deadly power that the vital forces are at once prostrated below the point to admit of reaction; the patient remaining cold and partly insensible from the commencement of the disease until death. The cold plague as it was called, which proved so alarmingly fatal in some parts of the old world, was characterized by coldness and absence of fever. This was also a peculiar feature of the Asiatic or epidemic cholera; the functions of nutrition and consequently that of calorification and enervation, being in many cases suspended in the very outset of the disease.

Cold and dampness are frequent causes of disease. Their direct effect upon the system is to weaken the vital power, and consequently, diminish and subvert the healthy order of action in the system; and whatever organ of the body is weakest proportionately to its natural degree of vitality, that will be the part most likely to become diseased. Hence of any number of persons exposed to the cold and dampness, each may have a different form of disease. Thus one may have pleurisy, another rheumatism, a third simple catarrh, a fourth bronchitis, a fifth quinsy, a sixth neuralgia, a seventh sick headache, while another may be taken with bilious fever, and another with erysipelas. In this way almost every variety of disease may be brought on by the same cause.

In medicine, error in theory, leads to error in practice. The physician educated to regard power as consisting of disease and the increased action of the heart and arteries necessary to sustain the curative action as evidence of excess of vital power, is led to prescribe antimony, nitri, digitalis and various other poisonous agents,with a view to ameliorate or repress those actions, and notwithstanding the evil consequences of such practice, the same course of treatment is pursued as long as the theory by which the practice is governed is believed to be true.

In disease whenever the action of the heart is augmented there is a cause for it. Thus, in fever inflammation, extreme debility, etc., its energy is invoked for the accomplishment of an object or design, ultimately for the preservation of the system. Physicians should study the design of nature and endeavor to assist her efforts more, as is their privilege to do.

Medical treatment to prove beneficial must harmonize with the principles of life. Pain may be relieved by stupefying the brain with narcotics, fever may be subdued by prostrating the vital powers, the heart's action may be lessened by the administration of digitalis and other sedatives, and inflammatory action may be reduced by catharties and general depletion; but such treatment operates always against nature, directly and invariably tending to deprive the system of the means of sup-

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RUNDSCHAU

By H. SPEIER, M. D.
Minneapolis, Minn.

SCARLET RED.

A medicinal agent which has recently attracted attention is scarlet red, an aniline dye, a derivative of disulphonic acid with beta naphthol. It is insoluble in water, slightly in cold alcohol, acetone, ether, but soluble in chloroform at ordinary temperature, in fats and fatty oils. It is a powerful stimulant to epithelial tissue growth and finds therefore employment in the treatment of ulcers, often supplementary to skin grafting. It is used in the form of an ointment in strengths of from 2 to 20 per cent, although the 8 per cent strength is the one of choice. It is made up with vaseline or balsam of Peru. The latter combination appears especially useful because it adds antiseptic to stimulating qualities. Good results can be obtained only on clean, healthy granulating surfaces. When the granulations are unhealthy, peroxide of hydrogen is to be used on them first. The ulcer is bathed with boric acid solution and dried before applying the ointment. Bichloride of mercury and other strong antiseptic solutions had best be avoided. Free use of silver nitrate stick is advisable to keep down exuberant granulations. The surrounding skin should be protected by some bland ointment. The scarlet red ointment may be applied over the whole surface of the ulcer if it be small or simply to the growing epithelial edge. It may be spread on loose meshed linen which allows the escape of secretions and thus preserves maceration. Another very satisfactory method is to apply a thin coating of the scarlet red ointment to the edges with a camel's hair brush, having first thoroughly dried them. It can be covered with strips of linen or left exposed to the air, dressed in the ordinary way. As scarlet red is somewhat irritant, the dressing should not be left in place longer than a day, in no case longer than forty-eight hours. Its place is taken by a dressing of some simple ointment, such as zinc or boric acid. After another day a new dressing with scarlet red is applied. In children it is best to let the mild ointment stay on for two or three days. A great variety of ulcers, including specific ones, have been treated with scarlet red with such satisfactory results, that some do not hesitate to recommend it in place of skin grafting in extensive ulcerations of burns.

IODINE TREATMENT OF GONORRHEA.

In a paper in the Journal of Dermatology on the therapeutic value of iodine H. H. Stromberger commended is highly for specific urethritis. One of the best treatments, he says, for gonorrheal urethritis, acute or chronic, anterior or posterior, is a solution of iodine and potassium iodide, one part of each to 100 parts of water, for injection or irrigation of the urethra. Unlike the many silver albuminates, now so extensively used in urethritis, it is both stable and economical. Given a case of acute anterior urethritis in the first day or two of discharge, which is the earliest we can usually expect to get the case in our hands, the use of the solution causes prompt sterilization of the canal and its crypts, the gonococci and any complicating organisms. In the acute cases there should usually be given internally potassium iodide and potassium bromide, 5 grs. each, well diluted with water, every four or hours. There is no simpler or better treatment, as you have the enemy between two fires. We know that within

fifteen minutes of its administration by mouth, iodine is present in the urine, exhibiting its marked antiseptic properties practically unchanged, besides exerting its powerful alterative effect on the blood stream, the bromide calming the ardor and other reflex symptoms so distressing in these cases and which sometimes materially retard the prompt restoration of the tissues to the normal. No other treatment is necessary beyond the usual directions as to diet, hygiene, and toilet necessary for these cases. Should some discharge persist which repeated microscopical examinations prove to be sterile, a mild astringent injection with bland diet and an iron tonic will close the case promptly. On the other hand, should the case be chronic, when it comes to us, with symptoms of invasion of the prostate and seminal vesicles, iodine is still the most valuable agent. It may be necessary to aid its penetration by cataphoresis, but if thorough contact of the iodine with the gonococci is obtained, wherever they may have logged, sterilization is assured.

Gonorrhea is so frequent, the treatment given so simple and the author's claims for it so positive that our readers will probably not hesitate to put it to the test in their own work.

THE TREATMENT OF MORPHINISM.

The orthodox line of treatment of morphinism discourages the complete and sudden withdrawal of morphine at the outset. The development of so-called abstinence symptoms is feared, consisting in attacks of cardiaac weakness, maniacal excitement, collapse, irregularity of the pulse, sleeplessness, diarrhea, vomiting, etc. But this fear is unfounded, according to Schroeder of the Breslau psychiatric clinic. He relates in the Berlin Klen. Wochenschr. that during the past few years no morphine has been given to the majority of morphinists admitted to the clinic only in a few instances some small doses being given soon after admission. His case reports show that no signs of serious disturbance arose due to the sudden withdrawal of the drug. In no case developed even a temporary delirium or collapse, though in many patients the quantiity of morphine taken up to the time of admission was very considerable. He found that a sense of discomfort, sleeplessness, shivering and occasional vomiting which were produced by the withdrawal, only lasted for from three to five days on the average and that these symptoms were never severe. In those cases where a congenital degeneration of the nervous system existed, the signs of an associated degenerated character became apparent during the period of withdrawal. As a rule the patients put on weight during the first week. Schroeder claims thata his records prove that the onset of severe and threatening symptoms due to the sudden withdrawal of morphine is imaginary. The most important therapeutic measures must be directed to the condition of the heart and to the general condition. Small doses of other hypnotics act well during the first few days. He further finds it valuable to impress on his patients, who can usually be made to believe it that the treatment is not dangerous and that no morphine can be allowed in funture under any circumstances. Their pains and other symptoms are usually no longer present by the time they have got back enough energy to to take matters into their own hands and the desire for morphine, as a rule, has disappeared. They must, however be kept under continuous supervision.

THE ACTION OF LIME SALTS.

A series of complicated studies pursued in the laboratory of Professor Hans Meyer of Vienna lead to these conclusions. First, calcium has a sedative effect on the nervous system and

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DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

COMMENTS ON GEMICIDES.

The valuable paper by Drs. Burdick and Abel is extremely interesting in the May number of The Recorder. There is much confusion, as they say, about disinfectants, antiseptics, and germicides. Amid the host of so-called germicides most are inert. The reference to the inutility of X-rays as a germicide is quite apropos just now in aiding to stop the buncomb and Annanias effect on the public of the fakers who are taking advantage of popular ignorance (and not a little professional ignorance also), to further their incomes by journal advertising in plausible contributions intended to hoodwink the unwary. The great percentage of these writers know nothing about X-ray work—many of them never owned an outfit of such machinery—and not a few never saw the apparatus in question. In company with some friends I set up a job on a lot of fellows who got into this business in our local journals some years ago when the ray was not as well understood as it is now. It cost us money to pay the fees of these swindlers because they always secured that in the beginning. All the same we finally showed them up and stopped their advertising in reputable journals. One chap that I interviewed myself had simply a cheap faradic coil, and when I asked him about the tubes and the light attachments he told me this was a new and improved affair which worked in the dark. He talked better than he knew, for the ray does work in the dark. Not long after in a lecture before a club connected with the church to which I belong, one of the audience said he did not believe in the electron. "Why," I asked. "Because I don't see it as I do the X-ray light." "Yes," I replied, "but you don't see the ray at all." "Good gracious, I am looking right at it now," said my friend. Now to show him his mistake I did this simple experiment. I put the globe in a box of wood about a quarter of an inch thick, well stained black, and the placed an electroscope of the usual gold-leaf variety at the other end of the room, eighty-five feet distant. I told the audience that I would excite the electroscope by charging it with static electricity through a glass rod rubbed with a cat-skin, which I did. "Now," said I, "when I turn the current on into the box with the X-ray globe in it, the light will not be apparent to you at all, but the X-rays will pass through the box—through the table—through the floor into the power room below, the electroscope will be discharged, and the gold leaves will collapse, showing the effect of the ray to do this phenomena, as physicians well know it has." The experiment was then performed with the result stated. My friend thought some new thinks, and a few other experiments got him away from the doubting Thomas condition—he now believes in the electron. This is the explanation of the failure of the X-ray to do germicidal work—the ray is not electric light—it is not electricty—it has not a particle of effect for good on any germ, and it has an unavoidable effect for harm on those who fool with it unadvisibly—be they the laity or the profession, unless the latter know what they are up against all the time, and take mighty good care to protect themselves.

Electricity, per se, is a germicide and will kill anything in that line as I

showed in a series of papers published about fifteen years ago in several journals. I anticipated these papers with three on electricity as a method of enforcing the death penalty in process of law, and showed by two hundred experiments on animals (or living things), from the steer to the cockroach in size, that death invariably ensued under a proper strength of current. Now, as I am a strenuous anti-vivisectionist, I tell my readers that most of these animals were condemned to death anyhow those not in this class were killed by currents many times more powerful than was required to do the work, so I am not guilty of cruelty, nor did I dodge my opinion as to the wickedness of vivisection as a plaything. Many folks never admit their mistakes—they never change—but I do. Whilst I thought at the time I made the experiments that high-power alternating currents were the right thing for electrocution, I now think differently. My advocacy of electric death did a whole lot to get up the method, for I corresponded largely with the powers that be, especially in New York state, but I think lethal effects may be had quite as well, and with much more propriety through the use of carbonic oxide and carbonic acid gas. We kill the numerous animals collected by the municipality in streets by this method, and it works efficiently and cheaply, so I now suggest this plan. Let the criminal condemned to death be placed in a condemned cell, so-called, when brought from the court wherein sentenced. The cell should be hermetically tight when required. Ventilation therein should be done by forced air currents entering at the bottom of the cell, the foul air escaping at the top near the ceiling. Do not sentence the condemned to death at any given date —let him alone in that respect. Let the warden or other official charged with the carrying out of the law give this criminal a good dose of morphia at a meal at once or soon after his sentence —repeat the dose at supper time—he won't know anything about this procedure—then at bed time turn on the gas at the bottom register—fill the cell with the lethal charge—continue this all night, and in the morning reverse the current forcing in atmospheric air at the top near the ceiling, and drawing the carbonic gas from the floor till the cell is full of respirable air. Test the condition by thrusting in a rod holding a sponge saturated with alcohol and burning through the peep-hole in the cell door, before opening it, and when assured that the air is respirable, open the cell and take the body to the place of interment—preferably in my opinion a crematory—and if I could hold control in such matters, I would not allow the body to go back to relatives under any circumstances. I believe in making crime odious—I think that mercy has been strained to the point of utter foolishness—criminals now think that they will be treated nicely and soon pardoned, no matter what their crime. Or send them to the dissecting room.

I hope these valuable papers by Drs. Burdick and Abel will be extended in The Recorder thoroughly.

W. R. D. Blackwood, M. D.
Philadelphia, Pa.

DISCUSSION OF ARTICLES

I believe there is a great present as well as a great future for the independent medical journal and for yours in particular. The official journals are in the hands of officials and unless one happens to "stand in" with officialdom his articles are apt to go into the waste basket. The official journals seem to favor a classical, formal style of article with no room for fun or poetry and no chance for the soul of the writer to shine through what he writes. If one

wants to walk with them, he has to put on a sort of mental hobble skirt and follow at a respectful distance. I have not yet attempted to write for any official medical journal and it may be some time before I try to do so. The independent journals have published everything that I have sent to them and I have requests from several others lying on my desk. Still I am only an everyday, family practitioner and one of the units that make up the bulk of the Chicago Medical Society.

Your suggestion for discussion of articles in The Recorder is a good one and I believe it will be adopted by many of your readers.

I sometimes think we learn more from our mistakes than we do from our teachers and I wish that our journals could be made a sort of clearing house for mistakes. Still, I suppose if I were to publish the report of a case in which I had made several mistakes. I would be an object of verbal assault and battery. One thing especially commendable in Osler's Text Book of Medicine is the candor with which he admits some of his own mistakes.

Students who go into practice without serving an interneship have altogether too high an opinion of surgery. The patient is rolled into the clinic, operated on and maybe some days later is brought in again with a favorable result but what does the student know about what has happened between times? Surgical instructors and textbooks are especially weak on after treatment.

The operations are described as always coming out perfectly. But many of them do not and the books give one very little light on what to do when a laparotomy would show infection or metastatic abscesses appear in the liver after an operation for perforated appendicitis. The interne knows the truth about the results of surgery, the details of after treatment and to know the patient as an individual and not merely as a "a case."

Dr. W. Stewart Leech gets down to the heart of things and I trust he will continue to favor us with articles from his life's experiences.

E. P. S. Miller, M. D.

Chicago.

WHAT IS DISEASE?

(Continued from page 183)

port, and to weaken its power of resisting the cause of disease.

"Physicians," observes a celebrated teacher of medicine, "have always looked at the outside of disease, and have been doctoring symptoms without understanind the nature of disease." Vomiting and all other disease expelling and curative actions, are instituted and carried on by a power generated at the base of the brain, the medulla oblongata. This is the seat or throne of power whence proceeds the commands for all movements designed to protect the system from disease.

RUNDSCHAU

(Continued from page 185)

secondly, it diminishes the permeability of the walls of the blood vessels.

The experiments add strength to the theory of eclampsia, as advanced by Mitchell in the Medical Record, that this disease of pregnancy, similar to tetany, is to be attributed to a calcium starvation of the pataient. Eclampsia is the result of the mother's need of calcium. The growing foetus is a calcium parasite and will have this element even at the mother's expense, causing in her carious teeth, headaches and nervousness.

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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VOL. 14 JULY, 1911 No. 7

If the bill recently introduced into Congress should be placed upon the Statute Book, there is trouble in store for the patent medicine man. The Supreme Court of the United States has decided that the present Food and Drugs Act only prohibits misrepresentation of the ingredients of a compound but not misrepresentation as to the cures it will effect. The proposed new law remedies this, and gives the courts the power to exclude articles for which claims are made in excess of their real value.

How this is to be decided nobody knows; since, as more than one judge has said, these things are not so much a matter of fact as of opinion, and opinion is free. If it is left to Dr. Wiley he will simply exclude from the mails patent medicines and also all periodicals which advertise them. With such radical enforcement of such a law it will not be safe for any manufacturer to put on his label any suggestions whatsoever as to the powers of his drugs in any disease.

How far this will work good, and how far it will be employed as a club to be wielded upon the heads of manufacturers who may happen to be disliked, is a matter which the future alone will tell—provided the proposed law be passed.

Already there are evidences in the newspapers of an endeavor to create public opinion in its behalf and to give the impression that the President is heartily in favor of the law.

♣ ♣ ♣

In the Experimental Farm of the Bureau of Agricltuure, near Washington, many drug plants are under cultivation. Among these are digitalis, belladonna, hyoscyamus, convallaria, rheum, humulus, calamus, iris, colchicum, valerian, calendula, peppermint, spearmint, cannabis, conium, caraway and fennel. Of distinctly American drugs are hydrastis, spigelia, ginseng, podophyllum, sanguinaria, geranium, rhus glabra, collinsonia, cascara, gaultheria and cypripedium. A native mint has been found that yields oil of levender. There is where those interested in drug farming should go for information. Many an acre now lying waste, because it is too small for profitable cultivation could be made productive with a crop that, like ginseng, hydrastin, aconite or digitalis, could be made to pay from $1000 to $2500 per acre. For explanation, take any drug journal that you find, look at the market list and note the price of any plant you are interested in, or any medicinal weed that flourishes in your vicinity. You have poke or burdock, have you? Well, see what burdock is quoted at per lb. and calculate how many pounds could be grown on an acre. Why cultivate 160 acres for a net profit of $1000.00 if you can make one acre earn that much?

MISCELLANY

PEPSIN, ITS ORIGIN AND CHANGES

In no branch of internal medicine has greater progress been made than in the diseases of the digestive tract. It is almost incredible that up to comparatively recent times digestion in its various phrases was treated empirically.

The introduction of pepsin as a remedial agent affected a complete revolution in the method of restoring to normal the ailments, which in the olden days were classes in a group as dyspepsia. If physicians were to observe anniversaries of the discovery of remedies which had proven a blessing to mankind the entire profession would unite in remembering the the 50th anniversary of the first manufacture of pepsin in this country.

Just a half century ago, the late John Carnrick, the eminent physiological chemist and the father of physiological products in the United States, made possible a new epoch in American medicine by producing the first pepsin.

Pepsin had been made in a small way in Europe before Mr. Carnrick's enterprise caused it to be introduced here, as it was originally suggested by Dr. Gorvisant of Paris. The quality was so poor, however, that its use was distinctly limited.

The study of pepsin is made doubly interesting by the story of the first known application of the gastric juice as a remedial agent. The Boston Medical and Surgical Journal of April 17th, 1856, records the first case of its kind in medical annals.

Under the heading "A New Method of Removing Soluble Substances from the Oesophagus" Dr. P. W. Ellsworth of Hartford, Conn., writes his experience, an excerpt from which is given herewith:

"In November, 1851, I was sent for to assist Dr. A. W. Barrows of this city in a case of choking in a lad of 12 years. An attack of scarlet fever some time before had left a stricture, probably at the cardiac orifice of the stomach. For several years, he had been unable to take any substance thicker than soup. On this occasion he had attempted to swallow a scrap of pork and every effort to remove the obstacle had failed. A probang was passed without result. No nourishment could be taken. After four or five days the lad was exhausted from lack of food, though attempts had been made to support life by broth enemata.

It occurred to me that the flesh might be dissolved and that the best solvent was the gastric juice itself. We obtained the stomach of a freshly killed pig, the contents were strained off and a teaspoonful given every hour or so. This was at night; early in the morning the mass was softened and easily passed into the stomach without instrumental aid. The patient suffered extremely from his long fast and had a severe attack of fever but recovered after a week or two. About two years after he was again choked in a like manner and the probang failed to produce expulsion of the offending meat. The same method was pursued and in a few hours the oesophagus was in good order without further manual aid.

On March 22nd, I was sent for to assist Dr. Child of East Hartford in a case of similar character. A girl of 17 had suffered from scarlet fever and her throat had seriously troubled her. She tried to swallow a tough piece of veal, which became fixed in the oesophaggus

and could not be dislodged with instruments. I suggested gastric fluid. We commenced giving it in half teaspoonful doses every half hour. She passed a restless night but the next forenoon threw up several small fragments and in the afternoon the mass was swallowed after the ejection of several stringy fibres.

I do not know that this is altogether a new treatment, but no author in my possession speaks of it, nor had it ever been suggested to my knowledge. Even now it is not absolutely certain that the solvent properties of the liquid are useful; still, as its use had been followed by relief three times, it is worthy of further trial. If some more palatable substance could be found, it would be desirable. Whether the gastric juice of a simply herbivorous animals would answer, I can hardly say; but it seems advisable to try that of a carnivorous one, as it would, if useful, produce a more speedy result."

So far as is known Dr. Ellsworth was the first physician to make use of the gastric juice as a digestant and John Carnrick undoubtedly was indebted to him for the suggestion, for he commenced the manufacture of pepsin about five years after Dr. Ellsworth published his findings. It is now known how much inspiration he received from Europe regarding pepsin.

The gastric juice was recognized as a local application of value long before it was thought of in any other capacity. Dr. Philip Syng Physick of Philadelphia, the Father of American Surgery as he has been aptly termed by his biographers, employed gastric juice in the dressing of "cancers, sloughing ulcers, for the removal of dead bone or flesh, for correcting offensive odors and for yielding a healthful stimulus to the diseased surface.

Dr. Physick was a daring operator and a most resourceful surgeon. He was a graduate in arts of the University of Pennsylvania in 1785,, received the diploma of the Royal College of Surgeons in 1791, and was graduated Doctor of Medicine from Edinburgh.

He became Prfessor of Surgery in the University of Pennsylvania in 1805 and continued a member of the medical faculty many years.

Dr. Physick's originality was confined largely to surgery and surgical matters and his discovery of the gastric juice as a curative agent was merely to assist him in his specialty. Apparently no one appreciated the importance of Dr. Physick's method of treatment, despite his great reputation and influence, for we find nothing in medical literature to show that it was followed up or in any way perfected.

The mutations of time bring many strange occurrences in their wake, but we recall nothing in medicine which has changed more than the gastric juice. It first came to notice as a topical application for open, infected wounds, and then after remaining dormant as a medicament nearly two score years was used as a solvent for food in time of dire extremity; later, it had become one of its principal ingredients removed to give to physicans a most useful assistant, and finally it formed part of an ideal digestant.

To John Carnrick's skill as a physiological chemist and to his diligence as a research worker is due in a great measure the perfection of pepsin. eH took it as a crude product, practically as a constituent part of the gastric juice roughly set aside, and developed it into a refined medicinal agent. For more than 30 years Mr. Carnrick manufactured pepsin and pancreatin, the latter a mixture of the enzymes naturally existing in the pancreas of a hog or ox, consisting of amylopsin, myopsin, trypsin and steapsin and capable of converting not less than 25 times its own weight of starch into substances soluble in water.

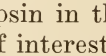
His observations lead him to the conclusin that valuable as pepsin and pancreatin were, they lacked the necessary properties to effectually reach many of the cases in which they were employed.

In consequence Mr. Carnrick began a sertes of experiments 20 years ago to determine the correctness of his theories. He proceeded to separate the nucleo-enzymes of the salivary glands, peptic glands,the pancreas and the glands of Lieberkuhn and Brunner and the ferment extract of the liver and spleen, so that a given amount would contain a proportional quantity of the enzyme principles of all the digestive organs and would act like the secretions of the natural organs.

For a long period these experiments were carried out under Mr. Carnrick's supervision by Dr. E. J. Lederle, the present Health Commissioner of the City of New York and at that time in charge of the physiological laboratories of Reed & Carnrick, which house is one of the oldest firms of manufacturing chemists in the country, having been established nearly 52 years ago.

After many months of experiments and observations, Mr. Carnrick determined that his nucleo-enzyme combination was so far superior to pepsin and pancreatin alone that he placed it before the medical profession under the name of Peptenzyme. This product formulated along lines physiologically correct, has proven its value as a distinct factor in treatment of he disorders of the alimentart canal, especially as it reduces albumens, starches, fats and cane sugar to the proper state necessary for assimilation.

ufacture of pepsin in this country can not fail to be of interest to housands of is prescribers.



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THE EFFECTS OF CERTAIN BACTIALER PRODUCTS ON HEALTH

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

Under the term "ptomaine poisoning" are classified a number of symptom-groups, some of which are very dissimilar from others. As a matter of fact, we have to deal with at least three, possibly more, distinct and separate conditions, all of which are at some time or other given the above name.

Probably the first work done along this line was in 1863, when Panum obtained what he called a "putrid poison" from some decomposing material. He found that it produced salivation, dilation of the pupils, diarrhoea, prostration, and rise of temperature in animals who were artificially inoculated.

Following considerable work along this line by other observers, the hypothesis was developed that all the toxic symptoms of the infectious diseases could be ascribed to ptomains. But the in- be ascribed to ptomaines. But the in- lich, Wassermann, and others, showing that in infectious diseases we had to deal, not with products of decomposition but with substances secreted by active living bacteria, each one specific for its own germ, and producing only the one symptom complex, threw new light on the etiology of bacterial diseases.

While ptomaines are usually produced during the decomposition of animal and vegetable material, they are undoubtedly formed also in the living animal body under certain circumstances, probably by the action of the putrefactive bacteria on food materials in the intestinal tract. And if not promptly eliminated, these ptomaines will produce various symptoms, resembling those of true ptomaine poisoning.

The symptoms in man which are usually referred to as ptomaine-poisoning may be due to eating partly decomposed food, food containing the bacillus botulinus (botulismus or sausage poisoning) or flesh from animals infected by the Gartner bacillus (bacillus enteridis). Each one of these is a separate and distinct condition. The first is the true ptomaine poisoning and due to products of decomposition. The second, while not an infection, is due to a toxin (not a ptomaine) which the bacillus has produced in the food before it is eaten. The third condition is a true infection, as we shall see later.

Taking the first group or the cases of undoubted ptomaine poisoning, it is doubtful whether the symptoms are really due to pure ptomaines or to a mixture of substances, because they do not always correspond to those symptoms produced experimentally in animals by the administration of pure ptomaines. These are (1) Dilation of the pupils, followed by contraction, sometimes irregular. (2) Vaso-motor paralysis, manifested by increased temperature of skin. (3) Slowing or cessation of respiration. (4) Loss of muscular contraction in response to electrical

stimuli. (5) Somnolence, convulsions and death. It is rare to find all these symptoms present in the many cases of food-poisoning that occur. Usually they are accompanied by gastro-intestinal manifestations, while the symptoms given above are more particularly referable to the central nervous symptom.

The second type of cases, which have been given the name botulismus or sausage poisoning, because they most often arise from eating raw or dried sausage, are common and frequently fatal. They are due to a toxin, produced by the bacillus botulinus, which was discovered by Von Ermengen in 1896. While the food contains the bacillus in large numbers, there is no multiplication of the germs after ingestion, neither is there any further formation of toxin, the bacillus being a strict saprophyte and incapable of growing in a living body. We have to deal with, then, not with an infection, but with the results of a preformed toxin which has accumulated in the food. The symptoms seem to originate from a toxic action on the medulla, and consist of great muscular weakness and paralysis, profuse secretion from nose and mouth, disorders of the special senses, and circulatory and respiratory derangements.

The toxin is similar in nature to that of diphtheria and tetanus, being extracellular and soluble, and very potent, 1-1000 c. c. being sufficient to cause the death of a guinea pig. It requires a period of incubation of from 12 to 24 hours before symptoms are manifested. This is the only known toxin which produces the same effects when ingested by mouth as when introduced into the circulation. An antitoxin has been prepared, which so far, in animal experiments, has proved itself very useful, and deserves further investigation.

In the third class of cases, for which the name true meat-poisoning is sometimes used, we have a distinct infection, or transmission of a disease existing in the animal before slaughter. Various epidemics of this disease have been reported from Europe at various times. The first one on record was reported by Gartner in 1888. The flesh of a sick cow was sold for food in a village in Saxony, causing 57 people to become ill, one case resulting fatally. From the spleen of this case, as well as the flesh of the cow, Gartner succeeded in isolating a bacillus, which he called bacillus enteridis, and which was afterwards found by other observers in similar epidemics.

The symptoms in Gartner meat poisoning are more distinctly gastro-intestinal, while those of botulismus are referable to the nervous system. The diarrhoea is especially severe and uncontrollable. All the symptoms of gastro-enteritis are present. There are three clinical types, one resembling a plain gastro-enteritis, one more like typhoid, and another resembling cholera.

While the infection is primarily due to eating meat from a diseased animal, it may be transmitted from one individual to another, probably like typhoid by excreta. Most epidemics are caused by flesh from cattle, more rarely from horses, goats and pigs. No cases are on record from sheep.

In neither botulismus or Gartner meat poisoning is the meat offensive or in any way characteristic. The longer since the time of slaughter, however, the more infectious does it become, on account of the multiplication of bacilli and the possible formation of ptomaines which complicate the symptoms.

To resume then, we have then in these three forms of meat-poisoning, one caused by true ptomaines, one by a soluble toxin, and one by introduction of pathogenic bacteria. Thorough boiling will destroy the botulismus toxin, but not the ptomaines, nor the Gartner bacillus, as the temperature in the interior of the meat does not reach the thermal death point of the bacillus.

Ptomaines are thermo-stable; toxins, thermo-labile. And while in the first two groups the symptoms are primarily nervous, in Gartner poisoning they are typically gastro-intestinal.

It is probable that the various cases of poisoning from old milk, cheese, fish, etc., could more properly be placed under true ptomaine-poisoning, although the gastro-intestinal symptoms in many cases are more prominent than those referable to the nervous system.

And, besides, it must be remembered that food of any kind may contain the germs of infectious diseases, such as tuberculosis, typhoid, cholera, etc. and thereby become capable of transmitting the disease.

In our next article we shall take up the treatment of these various conditions from a bacteriological and physiological view-point.

OUR NATIONAL HANDICAP

By FRANK F. CASSEDAY, Ph. B., M. D., Portland, Oregon

My text shall be the proposition that force backed by man made laws is a greater menace to the human race than anarchy.

Let us first consider the methods of dealing with persons accused of crime, and our treatment of convicts both during their incarceration in jails and prisons, and after their release. We say that the whole scheme of court judgment and prison punishment is based upon the necessity for society as expressed in concrete form in the community or commonwealth to protect itself. To protect itself from what?

The moment a person is convicted of crime he or she becomes a pariah and outcast, and the officers of the law treat him or her very much as they would treat a tiger, or wolf met in the road. They are obsessed by the force idea, and that idea assumes the form of force by arms.

On the other hand who ever heard of an officer of the law taking a convicted man by the hand and telling him he was sorry for him, or encouraging him to lead a better life, and make a man of himself. Why? Simply because the idea of force has its birth and existence in fear. Society, or the community, or the commonwealth as represented in the men in whose hands rests the adminstration of law (mind you all man made law) is saturated with fear of being pushed to the wall and crushed by some force which they do not understand and cannot analyze.

Our so-called civilization is saturated with the force or fighting idea.

Our Christian civilization so-called had its birth, it had its whole being and existence today in the force or fighting idea. Moslems are seldom, practically never converted to Christianity. Why? Simply because their religion is a religion of force and fighting. Why should they adopt Christianity? Their own religion has the essential force element. China had its beginnings back in the dawn of man's existence in organized communities. It has been a peaceful non-combative nation, and a wonderful existence extending over thousands of years. Their religion is well fitted to their needs. Why carry Christian civilization to them? Because trade and barter demands new fields, and as hide and hoofs go with the beef the force and fighting idea is forced upon them to protect themselves from the rapacity, greed, extortion, and robbery of the Christian civilized nations. The foreign missionary movement of the continental and American sects is simply helping along the force idea, and the fear which goes with it. When a man's neighbor totes a gun, he totes

one, fear becomes rampant, and murder and feuds result. Civilized (?) Christian (?) nations bear down the weaker nations by force of arms, the so-called heathen nations arm themselves for defense and from invasion, and the force and fear idea has practically taken possession of the world.

Where will it end? Are we not as a nation in common with other so-called civilized Christian nations, arousing the beast which will some day rend us?

England has gone too far on the road of colonial empire to turn back. Many thoughtful men realize that Great Britain with her tremendous armament and resources may some day face revolts and carnage, which will make the Sepoy rebellion fade into insignificance, and may change the entire political map of Europe and Asia. Force and fear are an endless chain, force begets fear, and fear begets more force, and in the end, if there ever is an end, there is destruction of the individual or nation.

Then again consider the effect of force and fear in the individual. Anger, or an outburst of passion, absolutely endangers and shortens the life of the individual giving way to it. Were it not for the protective forecs of the human body there is enough poison generated in the system during a violent fit of anger to kill a man if injected into his body quickly and without warning. Fear acts in the same way, and if anything, is more depressing to the brain centres than anger. Death from fear is so common as to no longer cause question or comment. Some physiologists even go so far as to say that a man with normal organs can be killed with fear, so strong is the control of the mind, or the will, if you please, over the subjective mind which in turn obeys the behests of the will if reiterated frequently enough, associated with the general depression of the vital forces accompanying fear.

Another phase of the force idea is interesting and pregnant with possibilities for evil. Some one has said that a war has a tendency to produce another within thirty years when all the people are imbued with the violent passions engendered during a strife grown to manhood and the force and fighting instinct is easily lighted at the age of thirty years. After our terrible civil war there was a long reaction and a long period of good will, and kindly feeling, and a desire for useful service throughout the entire nation. Then the commercial frenzy seized us, concentration of business gave birth to the corporation, dividend hunger with the absence of individual responsibility for abuses, wrongs and injuries, and the battle of purchased brains and money against natural human rights is now going on. The artificial individuals known as corporations procure agents to make laws to enhance their power and increase their wealth without consideration of equity, justice or fair play. judges are selected to interpret these laws and their affiliations, associates, and previous employment as counsel and attorneys for corporations and large interests so color their judgment, and bias their minds, as to hinder or place in abeyance the judicial temperament, so essential in an upright, honest, judge. Judges are human, and it is too much to expect that a corporation lawyer will not be swayed by prejudice, training, previous environment and association. Given then laws made in the interest of a class, made to despoil the masses, and judges selected who are a product of the same conditions, what is the natural and inevitable result? A seizure of the machinery and strong arm of the government to enforce unjust, inequitable laws, and to still further oppress the masses, to take their property under color of law, and while this plan is being carried out a venal press rings the changes on strict observance of the laws. It sounds too

ridiculous and assinine to be true, but it is true.

The day of awakening is at hand. A revolution is impending but it will be a peaceful revolution. The day of force and fear is passing. There are many signs to show that the leaven of kindly feeling, of love, or brotherhood is doing its quiet and effective work. All over the world prison reform is being inaugurated. We find to our utter astonishment that our convicts are human beings, and that they respond to kindly treatment, that they can be placed upon their honor, and will make good. Certainly some of them break faith and are foolish enough to run away and lose their chance. But men and women outside of prison walls are breaking faith with their fellows, and running away, and losing their chance, so we are gaining ground. We are findiing out that our fear was groundless, that the bogy was a mere shadow on the wall. Right here I wish to pay a tribute of honor and respect to our sturdy young Governor West who has taken advanced ground on prison reform. He places the convicts on their honor, and they are keeping faith. He sends them away to work without guards, on their sole personal pledge to return and they do return. Governor West has no fear, and he has put away force, and the results justify his faith, and the splendid courage of conviction which he has displayed. The splendid, hard headed warden of the Colorado Prison has the love of man in his heart, and he has put away force and fear, and is making over men, and giving them their chance and they are keeping faith. A human brute oppresses men by force because he is held down by a fear that he will be crushed. He knows in his heart that the ground is giving way under him and that his position is untenable. He is a product of brute force and he appeals to brute force, and is building up an engine of destruction to crush himself and society. He who appeals to the sword shall perish by the sword. Look on the nations who have grown by force. Babylon, Persia, Egypt, Greece and Rome, all have perished despite their wealth, energy, intelligence, and warriors. Then look on China. A peaceful non-combative nation with an existence extending over thousands of years, while other nations have been born, grown to mighty proportions, and decayed. What is the obvious lesson? Force is always an agent of destruction for individual and nation alike. The plea that China does not have the products of civilization, and caannot be compared to civilized nations is beside the question. Her civilization has sufficed for thousands of years, her people and life cannot be judged by our standards, but her religion has sufficed for her needs, and who can say her entity and integrity as a nation will not be intact when ours is in ruins.

Great Britain is taking advanced ground in the matter of pensions for old people, and true co-operation has long been in successful operation among the middle classes in England. A co-operation which has and is giving her moderately poor artisans and workers the necessities of life at a moderate cost, and teaching thrift by exacting cash, and paying dividends in cash.

In the United States the most helpful signs of the times is the taking the reins of the government out of the hands of the professional politician.

Oregon has taken advanced ground in the matter of recall of all elective officers including judges. It is the only sane method. As noted above the passage of iniquitous laws to favor and intrench the interests in their strangle hold on the people, and the selection of venal judges is the field where the real battle for human liberty must be fought. We must remember that the whole fabric of our laws, courts and

judicial procedures are made by lawyers, these lawyers have had the laws framed and passed in the interests of their clients, and not in the interests of the people, then the lawyers go upon the bench and tell us or guess at what their laws mean. We as a nation are suffering from a chronic attack of too much lawyer. The common people, who see clearly, think clearly, reason without a fee hanging in front of their faces, and are not actuated by self interest can be depended upon to clear the decks of rubbish and instill a little common sense and justice into the formation of laws and the operation of legal machinery. When Justinian and Theodora burned all the laws and enacted twelve simple rules they did well, but the lawyers soon saw that would not do, so the grind was started, and our assinine system of appeal and appellate courts based largely on previous judgments has become well nigh intolerable. Instead of judgments based upon common sense and justice, and modern conditions, our courts are trying to adjudicate disputes of today by ancient decisions rendered under totally different conditions. So the unending farce goes on. One judge guesses, and another judge guesses he is wrong, and so the tangle grows, and today a poor man has no standing in our courts, because the system is so complicated and expensive, and trivialities enter so largely into all causes, and the corporation with money wears out the poor man with delays and expense. But here again Oregon has taken advanced ground, and is determined to remove the handicap which the poor man has suffered from, and to arrange appeals and trials for quick action, and more reasonable chance for an even break.

Again our competitive system is the result of force kept up by fear. The feudal system gave way to our competitive system and so our competitive system must give way to something better. It is fiendish. We are simply flying at each others throats, and trying to grab money by hook or crook, and the more we get the more we want. Our desire for money has no relation to our needs or neecssities, but it is born of our desire to acquire power, to secure the things which appeal to our vanity, to feed our lust for force to compel the world to do our bidding, and it is strengthened by fear that we will come to want, that our power will be shorn, that our control of affairs will be taken from us, and that from the great eminence we have attained by sweating gold from the blood of men, and destroying and tearing out the love of our fellowmen from our hearts, we will be thrown down, and be despised of men.

Men are beginning to see that to serve their fellow men and to do well with joy the work that comes to their hands is the sum of human life. It gives joy and happiness, and not pain. When a man thinks he has all the money in the world he finds someone who has more and he is not happy or content.

To write a beautiful song, to paint a picture, which carries gladness, to make a fiddle which carries joy next to the human voice, to write a book to uplift the race, to serve those nearest at hand and in serving others to spread the gospel of service, of friendly feeling, of good cheer, this is life at its best.

We must have humanity which gives labor its due and hours for recreation, not a slave wage and public libraries; we must have fresh air; and play, and nourishing food for children and not child labor; we must have pensions for the broken worker, who has created wealth, instead of million dollar cathedrals built of their life blood; we must have compensation laws for the injured worker and his family.

Laws made in the interest of the cor-

poration and administered by their purchased creatures of the legal profession are a greater menace to the United States today than anarchy.

1. The laws are unjust and inequitable, and place power and force in the hands of a few to oppress the many.

2. The creatures of the legal profession who prostitute their ability to enforce unjust and tyrannical laws, or seek to save their clients the corporations or individuals from the penalties of laws transgressed, or give advice whereby transgression of the law can be carried on by their clients without suffering the penalty. these creatures cannot be reached or punished because they have so framed the laws and the courts so interpret the laws as to protect them in their nefarious operations.

3. Lawyers are elected to state legislatures as representatives of the people who elected them. Too frequently they accept retainers from corporations and endeavor to have laws passed in the interests of their clients and against the interests of the people. If other representatives do these things it is bribery and punishable. Lawyers call it a fee, and go unpunished. There are honest lawyers, but the legal profession makes no effort as a whole to clear the profession of these crooks and parasites on society, and criminals, so the entire profession is discredited in the minds of honest, decent people, and and voters as well as independent papers are outspoken in their condemnation of the legal profession and refuse absolutely to support a lawyer for any office.

4. Many judges are open to suspicion, and their decisions lend color to the belief that their decisions are inspired by improper motives and not in accordance with either facts, equity or justice. The whole fabric of our democracy depends upon the integrity, honesty, and impartiality of our courts, and the measure of confidence which the people repose in them. The capacity for sane self government is growing among the people, and if the people lose confidence in our courts they will not hesitate to sweep them aside and adopt the assemblage in some form, or courts composed of laymen of character and sound sense who will adjudicate questions on the basis of equity, justice and sound sense. We will admit that some lawyers know so much law that they can defeat the ends of justice, by playing up minor points, and throwing sand in the eyes of the jury, but aside from a knowledge of law, lawyers as a class are not as well fitted to adjudicate disputes, construction of contracts, and other matters of a purely business character arising in the business and professional world today as a competent and clear headed business or professional man. As a matter of fact the great majority of lawyers today know nothing of business except in an academic sense, and their advice is mischievous and bad, and of no value. Canada is teaching us lessons in court procedure, but we are poor learners. We can eliminate most of the cheap, crooked lawyers, as well as the ignorant members of the profession by repealing a lot of useless laws, and in making new laws make them simple, and to the point, and state specifically in every law passed by our legislatures that if the essence of the complaint is made under the law there shall be no claim of error, or technical point raised on some trivial thing as a misspelled word, in other words if the idea of the thing done or desired is stated so as to be understood no set form is required. That will stop objections, trivialities, and appeals which have no merit and will put a lot of crooked lawyers out of business. Canada is doing this very thing, and when they go after men or corporations they get action and results.

Our constitution and court procedures are not flexible enough. They hamper us, in fact, we would be better off

if we had no constitution, then changes could be made with less friction to suit conditions as they arose. England today is a more representative democracy than the United States and has no constitution in our sense. England can make radical changes in her governing methods and bring about reforms with less friction than the United States because not bound by a constitution.

We worship precedent too much. The old decisions of our courts today in large measure should be relegated to the lumber room and scrap pile, so far as they are of value in forming a basis for deciding cases based on present day business conditions, and relations. The decisions of certain state supreme courts of the United States are in bad, and other courts refuse to accept them as precedents. If all the rest of them were wiped out, and a sane basis of fact, evidence, and a court procedure simple and direct is adopted we will progress.

The people are growing wiser and saner. People no longer go to law over a trifling matter, they meet in the way and settle their troubles and dispuates. The whole machinery and system of courts needs overhauling and simplifying. It must come. It has become intolerable.

5. Anarchy is not understood by the people. Anarchy is a blind protest against injustice in the making and the administration of law, and a government, which is in the hands of a favored class with power to enforce laws of their own making. If present conditions in the United States have been brought about in the effort to centralize governing and law making power, and wealth, in a few hands by indirection and force, is it surprising that force is met with force. Bad laws, enforced with a strong arm, and centralized wealth the hidden power over all brings opposition, resentment, hatred, and arouses the primal instinct in man to fight and destroy the things which bar his path to happiness, a competence and recreation, and comforts of life for himself and his loved ones. Anarchy is one of the by-products of our murderous, soul destroying system, and the system is responsible for it.

Socialism is another form of protest against our oppressive, selfish and inhuman system, and the greatest good, in my opinion, which socialism will accomplish is to create, vivify, and bring into life and being love of man for man, friendly feeling, consideration and true co-operation. Great leaders will arise and help to increase this volume of good will, and all things good and of true report will come to this nation. It is not an idle deram. The power of purpose and will of sane people determined to work for the general good can not be measured. It is a matter of psychology, and it must come. We face as a nation two horns of a dilemma. The competitive system is destroying our moral sense. Force is making matters worse. The handwriting is plain upon the wall. The nation which appeals to and relies upon force goes down to curseless ruin. History proves it. On the other hand friendly co-operation and consideration for our fellows, and the square deal will build up and make this the best as well as a true Christian nation.

TREATMENT OF HEMORRHOIDS UNDER LOCAL ANESTHESIA

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In presenting this paper I have no pet operation to boost or technic to describe. When you look through your text books and see the variety of procedures described it is evident that the ideal for hemorrhoids has not been found. This is I think because they are a result of some other condition which is different or acts differently in each patient. Circumstances and surroundings not only influence the induction of the piles but also are a factor in your choice of treatment, which sometimes may be operative or again must be tentative.

In women a hemorrhagic flux sometime replaces menstruation and in atheromatous or apoplectic subjects this periodic loss of blood lowers the arterial tension and relieves the danger of rupture of the cerebral vessels. In such cases the prudent surgeon declines to remove the individual's safety valve. Hemorrhoids frequently accompany cirrhosis of the liver and here we must never operate because either the wound will not heal, other hemorrhoids will appear higher up or dropsy and a rapid break down will ensue. The hemorrhoidal veins communicate freely with the portal and general venous systems and all diseases of the liver, heart, kidneys and lungs have an important bearing on the etiology and treatment of piles. Therefore on your first reception of a hemorrhoidal patient you must ascertain much about his physical condition, his habits and the condition of his piles before you consider his treatment because some are relieved by very simple procedures, others require major operations and still others are incurable and must not be operated upon at all.

Hemorrhoids that are amenable to treatment occur under very different conditions and in all classes of patients. There are many methods and most of them are good in selected cases and your treatment is half done when you select your case, determine its proper treatment and know what results to expect. The reason you treat so few rectal cases is not that they are infrequent but rather that your patients do not like to have an operation and particularly to take a general anesthetic and be confined to bed. Patients suffering with piles are prone to use domestic remedies and nostrums until they are physical wrecks from loss of blood and pain, all the time refusing an operation. With our present knowledge it is not always necessary or wise to give a patient a general anesthetic and keep him in bed or in a hospital three or four weeks irrespective of the variety or condition of the piles. Practically all uncomplicated cases, and they are numerous, may be operated upon with local anesthetic at your office or at the patient's home. This eliminates the danger to life from heart, lung or kidney complications of a general anesthetic and lessens the pain and danger of secondary hemorrhage due to vomiting so often after a general anesthetic. Incidentally it puts dollars cheerfully from the patient to your pocket.

Hemorrhoids are divided into two great types by the position of their origin internal or external to the sphincter ani. As the internal type becomes exaggerated and is pulled down by the sphincter it will protrude externally but it is never the less an internal hemorrhoid and must be treated as such. This differentiation is important because the treatment of each type is different. In fact each individual case presents peculiarities of its own which demand modifications of the outlined treatment.

Hemorrhoids are reptured hemorrhoidal vessels. The inferior trunks at the anus or below are covered with skin which stretches but little and the blood is closely confined under tension, thus causing severe pain. The middle and superior hemorrhoidal vessels above the anus are covered with soft fatty connective tissue which easily dilates and the tumor may attain considerable size without causing anything but an uneasiness due to it being a foreign body, but when the hemorrhoid has been pulled down by the sphincter and has protruded for some time the mucous membrane becomes dry and thickened and resembles skin. It is of course the end capillaries which more frequently give way and thus we have a varicose pile when a venous capillary breaks, an angioma or arterial pile if an arteriole ruptures and when a pile has protruded long and has been bruised and inflamed the areolar structures are changed into connective tissue.

The patient's story of an external pile is usually something like this. He was perfectly well and while at stool either straining or after wiping himself rather harshly he felt a twing or sting at the anus and since then has suffered a sharp, continuous pain. This is a thrombotic hemorrhoid and to the touch feels like an enlarged lymphatic. It is usually single but may be multiple. This condition if found on the skin elsewhere would be called a blood blister and even when you were a child you knew that to let the blood out gave immediate relief. The same treatment holds true here. Rip the tumor open and let out the blood, but whenever you operate about the rectum remember to clean things up a little. I have seen surgeons who would carefully prepare their patient and themselves for a laparotomy, begin work about the anus without any further preparation than simply wipe off the anus with a cotton pledget dipped in bichloride. That will not do. You must wash the whole area well with green soap and flush with alcohol just as you would cleanse the skin anywhere else. It is not necessary to have the hair removed as it does not cause trouble and if removed the subsequent growth feels so much like a pin cushion as to disturb the patient.

The slight operation for thrombotic hemorrhoids may be painlessly performed by freezing the surface with ethyl chloride. Then steady the parts by holding the tumor between the thumb and forefinger of the left hand and with a sharp pointed bistoury entered at and passing through its base the pile is split in two. The incision shall radiate from the anus because a scar one inch long at the anus in any other than a radiating direction will by consequent contraction make a skin fold which will be dirty and troublesome later. Immediately on opening, the skin retracts and the clot usually pops out followed by a little oozing. If the clot does not slip out it shall be picked out with forceps but not squeezed out as that produces traumatism, breaks up the clot and increases the danger to emboli. Be careful to split the whole tumor not merely its top. If the patient will strain down during the cutting it fixes the perineal tissues and also assists in removing the clot. When the clot is removed you will notice an oozing from one or both ends of the vessel. Therefore the pile cavity must be packed firmly with gauze soaked in 1-1000 adrenalin solution to stop hemorrhage and prevent the severed edges falling in and glueing together. If this should happen the sack will refill and the pile reform. In 24 hours remove the gauze but do not use force as that causes needless pain and hemorrhage. Rather soak it for several minuts with hydrogen peroxide and it will fall out. If bleeding still continue you will have to repack but usually the edges have retracted leaving a shallow, granulating wound which heals in a few days. The radial folds fall together and close the wound without sutures. Dress

the wound each day to see that no feces lodge to irritate and infect. This is a simple operation but gives uniformly good results and nothing else does. Therefore it is the only treatment. There are two things you must not do. 1. Do not simply puncture the hematoma. That allows a few drops of blood to escape and relieves the pain for an hour or so until it refills and then the pain recurs. 2. Do not apply a leech because it is dirty and may protract the oozing several days, being both annoying and exhausting. Often the patient does not consult the doctor until the clot has been absorbed, expelled or abscessed and there remains an hypertrophied tit of skin which we know as a cutaneous hemorrhoid. This may also hapen unless the wound is well packed down. I never suture the wound because the suture tracks almost always become infected and instead of hastening you retard healing. The sutures pinches and annoys the patient.

CUTANEOUS HEMORRHOIDS.

A cutaneous hemorrhoid per se causes no symptoms whatever because it is only a skin tag more or less hypertrophied, but owing to its peculiar situation it is liable to frequent trauma from being sat upon and when inflamed it comes to the attention of the rectal surgeon. It is also aggravated by improper diet, irregular habits and uncleanliness, and requires careful cleansing to prevent maceration which causes an offensive discharge. When inflamed it appears as a hard, edematous, tender mass at the anal margin varying in size from that of a pea to as large as the first joint of your thumb. It is external to the sphincter and if pushed within the anus it promptly prolapses. It is smooth and shining covered with skin on the outside and perhaps mucous membrane on the inner side. It is necessary to recognize this form of hemorrhoid as it is a connective tissue tumor and not vascular. Scarification gives no relief and attempt to place it within the rectum makes matters worse. The treatment depends upon what your patient will permit, tentative treatemnt for relief and removal for cure.

Many individuals go for years with these cutaneous hemorrhoids without suffering by being careful and cleanly in their habits.

When irritated it may be treated expectantly until the inflammation subsides and the pain disappears. Suppuration is exceptional but the tumor remains larger after each attack than it was before.

Palliative treatment consists of

1. Rest in bed lying on the face or side (not on the back).
2. Bathing with cold compresses.
3. Apply a soothing ointment such as Ung. rectone.
4. For diet allow meat, green vegetables, fruits and large quantities of water but avoid starches.
5. Cholagogues must be used judiciously. Each case must be carefully studied for its own peculiarities.

The only curative treatment for these tumors is radical excision. This may be performed under local anesthesia but to do successful hemorrhoidectomies requires close attention to minute details and careful consideration of your patient's nervous temperament and personality.

The base of the tumor is determined and marked by abrading with a scalpel. A one half of 1% cocaine solution and one-half of 1% of 1-1000 adrenalin solution is used for the anesthetic. The mixture must be fresh. The hypodermic needle should have a long straight, tapered sharp point that may be smoothly introduced into the skin as otherwise it sticks in the outer skin, then jumps through. The patient jerks away and you have to begin again. The oblique portion of the needle's point is laid on the skin at the point of the first injection. The integument is drawn tense and by moving the fingers only the needle

is pushed steadily in until its mouth is buried in the tissues. A few drops of the solution is injected and a welt arises in advance of the needle. The needle is now advanced into this welt still keeping it in a plane parallel to that of the tissues and another welt formed. In this manner the line that marked the base of the pile is followed around the tumor. The needle is then carried deeper and the process continued because not only must the hemorrhoid be anesthetized but also its base and the tissues underlying so that the patient may not experience any pain. Filling the tumor with cocaine raises the abraided line marking the base of the pile above the level of the surrounding tissues but this is the line of incision and the tissues will return to its former level when the fluid has been absorbed or has flowed out. Sometimes a couple of bleeding points need to be picked up and the wound edges approximated with three or four number 1 catgut stitches. A light absorbent dressing covers the wound. Each day this is removed and the parts douched with warm, normal salt solution and fresh dressings applied. The parts must be washed after each bowel movement. The wound usually heals in about a week. In placing the stitches be careful that the edges are well coapted and no raw surfaces left as such places are very painful and delay healing. If one of these spots is accidentally left it will cover with granulations which should be clipped off close to the surface. The sutures must be placed as soon after the tumor is removed as possible because when the blood escapes the anesthetizing fluid is also lost and sensation soon returns. It is sometimes surprising to see a tumor dissected away painlessly and then have the patient complain considerably when the stitches are put in.

INTERNAL HEMORRHOIDS.

The internal hemorrhoids constitute one of the most frequent, painful and troublesome conditions about the anus. They begin in the capillary anastomoses between the portal and caval systems usually just within the anus and extend up a variable distance involving larger vessels and plexuses. These vessels being just under mucous membrane may disttend easily until they are caught in the grasp of the sphincter which then continually tugs at them until they protrude. The suffering caused depends upon the extent of inflammation, ulceration or strangulation of the pile and is also responsible for other rectal, vesical or prostatic, uterine or reflexed pain and disturbances. There is also produced a saneous discharge which causes a persistent pruritus and finally through infection, abscess and fistula. Clinically we often find a patient with both external and internal hemorrhoids at the same time. The venous capillary usually gives away but some times the arterial capillary ruptures. The two varieties must be distinguished because palliative treatment is useless with the arterial variety.

The arterial hemorrhoid is really a naevus. It arises in the anal canal never more than two inches within the bowel. It cannot be felt by the finger and as it does not protrude it must be seen through the speculum. It attains the size and appearance of a raspberry and is characterized by excessive hemorrhage which is sometimes spurting in type and during which the patient may be exsanguinated. A number of deaths have been reported from this cause. They cause little or no pain, rarely protrude and may occur alone or combined with the internal venous hemorrhoid. If found alone I use the galvanocautery. The technic is very similar to that which the rhinologist uses when cauterizing the nose. A good sized fenestrated speculum is introduced and the pile engaged in the opening. A few drops of cocaine are injected into the pile and the cautery applied at a dull red heat. It is applied momentarily only and repeatedly so as not to radiate heat, and yet coagulate the lymph the plug the vessels. Be careful not to cauterize too

deeply nor simply sear over the surface. The whole pile must be destroyed down through the submucosa so as to destroy the chief blood supply. The cautery tips are small and are plunged directly into the pile. The arterial hemorrhoid is usually found singly but rarely two or three may be found. If so all may be removed at one sitting. After finishing the operation cover the wound liberally with soda bicarb. to relieve the pain. I rarely find opiates needed. Each day I introduce the finger well covered with 10% ichthyol in vaseline to keep the sphincter relaxed and to protect the granulations. The care of the bowels is the same as will be spoken of in the treatment of the venous variety which we will take up next.

VENOUS HEMORRHOIDS.

Venous hemorrhoids are the most common variety of piles and vary so very much in size, complications and degree of suffering they cause the patient that no one plan of treatment is applicable for all cases. Where the tumors are isolated and prolapsed they may be removed under local anesthesia at the office. Where they are not prolapsed and where they extend high up in the bowel they are usually complicated with a narrow anus and an hypertrophied sphincter. Under such conditions it is difficult to reach the top of the varicosity and as the whole pile must be removed it had best be done under ether. Of course if all the pile is not removed your operation affords only temporary relief and is otherwise a failure. If several hemorrhoids are to be removed the operation had better be done at the patient's home even if under local anesthesia because if performed in your office there is danger of secondary hemorrhage from a stitch pulling loose by the patient's movements on his way home. Let us divide these venous tumors into

1. Those that must be treated tentatively.

2. Those that may be removed under local anesthesia.

3. Those that require a general anesthetic and confinement to bed and absence from work for some time.

Venous hemorrhoids may be much relieved by palliative treatment where surgical treatment cannot be instituted either by the patient's refusal, some jeopardizing systemic condition or in aged or delicate individuals. In all of these conditions unless there is excessive bleeding or strangulation it is better not to operate but to use local tentative measures as there is always danger of embolism, hypostatic pneumonia or phlebitis after operation on such subjects.

If the hemorrhoids are inflamed and prolapsed they must first be reduced. If the patient is seen at his home he should be sent to bed. An upturned chair is placed in a slanting position on the bed and the patient on his knees reclines against the chair. This places him in an oblique lateral position, a posture between the Sims and knee-chest.

Next paint the whole hemorrhoidal with 2% cocaine in 1-1000 adrenalin solution and then wait twenty minutes because the circulation in this edematous and strangulated mass is slow and the drugs are not rapidly absorbed. Gravity depletes the tissue and the patient's position with the thighs flexed relaxes the pelvic muscles so that the protrusion will either reduce of its own accord or may be easily replaced. Of course all of it does not belong internal. Probably about one-half does and a lateral sulcus running parallel with the median raphe will usually be found. Internal to this line is mucosa and external to it is skin. This should be remembered because if the whole mass is placed within the rectum the patient will be just as uncomfortable as he was before. That part external to the sulcus is edematous external tissue and sometimes it may be necessary to incise this to deplete it quickly.

After the hemorrhoids have been properly replaced the whole anal region should be well covered with rectone ointment covered with gauze compress and the patient is then let down on his bed stretched out prone. The pad and the buttocks are now strapped down with adhesive plaster re-inforced with a T bandage. If the hemorrhoids are inflamed but not strangulated they should be given a bath of warm, slightly antiseptic solution followed by a cold douche and then the rectone ointment applied. The patient should lie on his face as long as he can and then may turn on his side with the hips elevated on a pillow or two. Keep the hips up and do not let him lie on his back. This is important because it will arrest infiltration, hasten resolution and relieve pain more effectively than any other remedy.

The next day put the patient on his side with the knees well flexed, dilate the sphincter gradually and massage the hemorrhoidal field. Irrigate the rectum and anal canal with sterile water and swab the piles with 1-1000 adrenalin solution and apply the ointment on the outside. If there is much mucous discharge it will be well to inject one-half ounce of aqueous fluid extract of krameria at night.

The bowels must be kept open each day and it is a study with each patient to find something laxative but not exhausting. Sulphur is gentle in its action, produces a soft, mushy stool which easily slips by obstructions and allays inflammation by its presence in the stool. Castor oil also produces a soft stool, does not create gas and leaves the abdomen relaxed. It is a good plan to have the bowel movements at night that the patient may rest after cleansing and dressing the rectum.

Hemorrhoid sufferers should avoid strenuous exercise, bicycling, riding, automobiling and railway journeys as these all maintain a position with the thighs flexed which opens the anus below the internal sphincter thus losing the anal support. By careful, close attention these patients can usually be made very comfortable but of course it is only tentative and not curative.

REMOVAL UNDER LOCAL ANESTHESIA.

One of the cardinal reasons for using a local anesthesia is to interfere as little as possible with the patient's pursuing his regular duties. Therefore too much must not be attempted. Where several hemorrhoids are to be removed it will require several sittings. Only one or two should be removed at one day. A local anesthetic has a distinct advantage in aged, timid or nervous patients who object to the anesthetic but you must attempt only such cases as the tumor can be brought outside or the anus is patent. Internal hemorrhoids bleeding and painful and demanding operation but not protruding to any extent cannot be satisfactorily removed under a local anesthetic because the very first step in the treatment of such a case is careful but thorough dilation of the sphincters and that is impossible without a general anesthetic. If the anus is patent or if you can easily reach the upper limit of the base of the pile without much stretching you may operate under cocaine but if the pile is a large one the patient should rest in bed for a couple of days. The determination of which hemorrhoids shall be operated upon with local and which under general anesthetic is an important matter and yet in a general way we can say most cases may be operated upon safely in the physician's office or at the patient's home under local anesthetic causing but from a few hours to two days detention from business. Where only one or two piles exist the operation may be performed in the office and the patient sent home after a little rest but in aggravated cases where a large area is involved or where the blood vessels are atheromatous the work should be done at the patient's home or at the hospital to

protect against the chance of secondary hemorrhage.

TECHNIC.

To prepare the patient give him a soap suds enema of hot water about one half pint and then let him empty the bowel by straining. This fills the hemorrhoids and causes them to protrude. Place him on the table in the Sims position and if the piles do not protrude or cannot be brought outside of the anus the work must be done through a speculum. If it is necessary to use the speculum you must dilate the sphincter at least partially with Kelly's conical or a vibrating dilator. If the hemorrhoids have protruded for some time the sphincter will usually be found relaxed and will not need dilating. If you do dilate use five to ten minutes, then relax the sphincter gradually. When working through a speculum one of the great points in painless manipulation of the sphincter is to evenly distribute the pressure throughout its circumference. By injecting 2 to 30 minims of a half of one per cent solution of cocaine into the sphincter muscle just on either side of the posterior commissure at the point of entrance of the lesser sphincter nerves the muscle may be dilated with comparatively little pain. Of course it cannot be divulsed but why should you do that? Five minutes after injecting the sphincter introduce a bivalve speculum, open it a little and massage the muscle, but be careful not to tear the mucous membrane. Having opened the anus you can now reach in, pick up one of the piles and bring it outside or introduce the fenestrated speculum and engage a pile in the opening and work inisde. Whatever method is used the best results are obtained by keeping the tumor at or near its normal position. Dragging it forcibly outside distorts its relations and interferes with placing the scar in its proper angle with the anus.

The particular hemorrhoid having been brought into place may now be anesthetized by infiltrating as I mentioned earlier with these particulars. The needle must be fine (thin) as a thick needle may be thicker than the capsule of the hemorrhoid and instead of infiltrating you will drive the needle directly into the circulation. Never begin any manipulation, pinching or operating on the hemorrhoid until it is anesthetized. When everything is ready dissect the pile up from below until a small pedicle is formed. This is transfixed with a fine round needle carrying a double ligature of fine catgut which is tied on either side. I always use a double ligature if I can because it prevents secondary hemorrhage from slipping. Having tied the suture cut the tumor off and cut the ligature close. After you remove the hemorrhoid let the wound bleed a little to wash out any cocaine left in the tissues and then apply a compress soaked in 1-1000 adrenalin for a few minutes to stop the oozing. If I cannot dilate the anus enough to ligate the hemorrhoid I use the electro-puncture which I described when speaking of the treatment of arterial hemorrhoids and which gives good results. Its use however requires several weeks because only a couple of applications can be made at one time and about two sittings a week are all that can be endured. If after a couple of weeks soreness is complained of the treatment must be stopped for a week or two to allow healing. In this work an assortment of straight and curved tips are needed.

After either of these operations there results only a slight oozing which can be cared for by a small external pad during the first couple of days.

The degree of pain following any operation for hemorrhoids depends somewhat on the temperament of the patient but also to a large degree on the technic and skill of the operator. During the first day I use hot compresses and after that a hot sitz bath for twenty minutes each day. This cleanses the perineal

region and relaxes the muscles. When the patient lies down do not allow him to lie on his back because in that position the middle and superior hemorrhoidal vessels in their upper portion are in a vertical position. At the pelvic brim they bend a sharp angle and the abdominal contents are superimposed. All of these obstruct and as the hemorrhoidal vessels have no valves there is a back pressure and a tendency to swelling, a giving away of the stitches, and more pain as well as a delay in repair. Therefore keep your patient prone or in the Sims position.

No opiates are needed for pain or for tieing up the bowels. If he has been properly prepared the bowels will not move until a purgative is given. These patients expect defecation to cause terrible pain and I presume their fear acts as an inhibtion. The accumulation of flatus in the bowel is frequently an annoyance. If it occurs urge the patient to void it. If left to himself he usually restrains the desire because he is afraid bleeding may occur and he will often spend a wakeful, restless night when he could have relieved himself without any possible harm.

If the sphincter contracts spasmodically and causes pain it shows you did not relax it well before operating. It may usually be relieved by hot compresses. I do not use a hot water bag because of the danger of burning.

Our patients will suffer less pain if we remember:

1. The wound must not reach the muco-cutaneous edge as that is the most sensitive point at the anus.

2. The wound of one hemorrhoid must not be disturbed when removing another.

3. The axis of the wound must conform to the axis of the anal canal. This coaptates the wound edges and the scar cannot narrow the lumen of the bowel or catch feces.

4. One incision or all of the wounds together must not involve the whole circumference.

5. Hemorrhage must be arrested and you must be prepared for secondary hemorrhage if it occurs.

6. Never use bichoride of mercury during the operation or in the dressings becasue it will set up a teasing diarrhoea.

7. Never plug the rectum with gauze or a tube. It cannot do any good and always makes the patient feel uncomfortable.

MEDICAL PROGRESS

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(Continued from page 181 July Recorder)

The history of medicine is checkered throughout with some strange fancies. The gamut has been run from the grossest materialism to the most refined spiritualism, so to speak. Medicines have alternately been administered under the conception of man's being a simple machine controlled by physical laws; and again that there is more of the ethereal than of flesh and blood in his makeup. Disease was at one time regarded as the influence of an evil spirit which had entered the body and possessed it, dominating it at will, and as a physical entity, which it has been sought to lay hold of and exorcise, by lancet, purge, emetic, diaphoretic, and diuretic. However, men have learned to become the servants of nature, rather than to strive vainly to thwart, or control these conceptions of disease, and such medication has disappeared; and we have now a system of medication founded on a knowledge of the exact science of anatomy, physiology, chemistry and pathology, which is itself well-nigh scientific and full of promise.

Of course, medicine is not yet what it

is going to be some day, as it is not yet free from many of the absurdities that once characterized it. There are still many vagaries, and a vast deal of empiricism even among those who should know better. Superstition and ignorance are hard to remove. It seems such things are inevitable, so long as men will not acquaint themselves with fundamental and scientific principles. Among these vagaries which still cumber medical progress, there is none more absurd, or baseless, that that of "Specific Medication." It is a relic of the most primitive days of medicine,—revamped, and now paraded as an infallible dogma, by an adventurer, whose specious arguments have won a considerable following. It is not strange that this following should be as large as it is, for there is something attractive about the idea of "specifics." The idea is one that has a firm hold on the popular mind,—being a popular conception of medicine,—that there is a specific remedy for every ailment; and that every symptom has its corresponding drug which is good for it. The less, therefore, the remove from the common mind, the more superficial the medical education of the practitioner, the stronger is the belief in specific medication. While these things are true, it is passing strange that in full blaze of this twentieth century, such a fallacy should exist. There was a time, when it was excusable:; but there is absolutely no excuse for such a claim now. We are crowded with more fallacies, fads, fancies and cruel humbugs, now, than ever we were. It's lo here and lo there. Any attempt to combat or expose these new ideas and claims is entirely futile. The inevitable corrollary of "specific medication" is the singleness of action of each drug. The doctrine of specifics is an idle dream: a figment of the imagination, and no man who is grounded in the fundamentals of the science, can promulgate such a doctrine, except with a sinister motive. The young student who sits at the feet of the modern Gamaliees of our colleges, can but see, and learn the fallacies of many dogmas that are rampant in the medical world of today.

I have referred in my articles to the ancient opinions as to the nature of diseases, and the various names that were given to them in early times. To resume such descriptions, I will speak of venereal diseases, as they understood them. The authors in early times make mention of sundry ulcerous diseases of the genital organs, and the fauces. Celsus described the ordinary venereal diseases as they are today. Rhazos, an Arabian writer, mentions an "ulcer of the penis" produced by the "acconsionom mulieris supra virum."

Several authors who flourished between 1270 and 1470, mention ulcers and pustules of the penis, as having been contracted by "lying with foul women," or with women who have ulcers —or "who have lately had connexion with one whose penis was ulcerated." Beckett presented two papers to the Royal Society in 1717 and 1718, in which he contended for the antiquity of venereal diseases in England. He proved that gonorrhea was well known in 1162, under the terms "brenning or burning; —and that certain enactments were extant, which provided that any stewholder, keeping a woman with the perilous infirmity of burning should forfeit the sum of one hundred shillings." Further, he says, that "John Arden, surgeon to Richard, II., (1380) defines the brenning to be an inward heat, and excoriation of the urethra": and that besides he mentions certain "contumacious ulcers," which we now term chancres. A Mss. in Lincoln College, Orford, written by Thomas Gascoine, Chancellor of the University, dated 1430, states that some men, and among them being John, of Guant, had died of a "disease caught by frequenting women." They also thought that venereal diseases were caught from "leprous women." They sup-

posed leprosy was, no doubt, syphilis. Bateman said, that "there is little doubt that every species of cachetic disease, accompanied with ulceration, gangrene, or any superficial derangement, was formerly termed, leprosy." Beckett observed "nodes of the bones," at that early period; and shows that "some of the so-called leprous diseases, were cured by mercury." So, those diseases were known in very early times. Still, they do not all attribute these venereal diseases solely to sexual commerce or that they were peculiarly difficult to heal, and that they were followed, as a rule, by constitutional disease. All at once, however, when the French army was besieging Naples, a "new and terrible disease sprang up, rebellious to every known method of treatment;—attacking high and low,—rich and poor,—sparing neither age nor sex,—consisting of ulcers upon the parts of generation in both sexes, which were frequently followed by affections of the nose and throat,—by corroding ulcers upon the whole body,—by excruciating nocturnal pains,—and frequently by death." Whereas: "Not one word that could be construed into any similar affection, is to be met with, distinctly stated by any writer, before that period." The venereal diseases were not mentioned by the earliest American writers. Peter Martyr, physician to Ferdinand and Isabella, and was at Barcelona when Columbus returned from his first voyage, in 1493, does not say much about such disease; and did not as some had charged, say that it was brought from Aemrica. Strange as it may seem now, some attributed venereal diseases to "divine vengeance"; some to "earthquakes"; some to "maligning of the air"; Italians, to the "overflow of the Tiber"; some to "Celestial influence"; to the "malignant conjuction of Saturn and Mars, in the sign of Scorpio."

Hunter, of England, thought that gonorrhea and syphilis were identical. He had two kinds of "clap," "inflammatory and spasmodic." As to one of the most painful effects of gonorrhea,—viz., rheumatism, it was said to have been described by Swedlaur and Monteggria; but South said: "Gonorrheal rheumatism, and gonorrheal ophthalmia were first mentioned by Sir Astley Cooper; and the first of these affections, he considers, is not an infrequent disease but appears to have been previously observed by the elder Cline; for in reply to a question put to him by Cooper, said he had seen gonorrheal rheumatism "several times." Sir Benjamin Brodie says: "The disease is usually described under the name of gonorrheal rheumatism, though it is plain from the course of the symptoms, and from the effects of remedies, that it differs from ordinary rheumatism in many essential circumstances, and though there seems to be no doubt that, while it occurs in most instances as a consequence of gonorrhea,—it may take place quite independently of it."

Syphilis was known in the times of Shakespeare,—as he says in Hamlet,—where the melancholy Dane asks the grave digger: "How long will a man lie in the grave ere he rot?" Grave digger: "Faith, if he be not rotten before he die, as we have many pocky corpses now-a-days, that will scarce hold the laying in)" he will last you some eight or nine years."

RATIONAL THERAPEUTICS

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Two only of the many causative factors in leading to either success or failure will be considered in this paper. These are knowledge and proficiency in diagnosis and therapeutics, or ignorance and carelessness in the same. Whatever tends to advance the cause of practical medicine should be welcomed as a blessing by every real physician in our crowded profession. If the practice of medicine is ever to reach the plane of a definite science and take rank alongside of chemistry, anatomy and collateral sciences, it must attain that position through the doors of diagnosis and therapeutics; but instead of being open doors, they are often stumbling blocks in the way of success to the many who prefer a shorter cut or a more brilliant career through the pursuit of some specialty, or the ways of quackery.

A mistaken diagnosis leads to failure because the line of treatment based upon such an error must either fail to do good or prove positively harmful. While there is no such thing as infallibility in diagnosis, yet there is no excuse for the common every-day mistakes that are made by so many, and in the most easily diagnosed diseases. Diagnosis is the science; treatment is the art of medicine. Diagnosis must first be studied as a mechanical or physical science before its clinical side can be correctly approached. The eye, ear and finger must be trained to distinguish between the normal and the abnormal before the long train of signs and symptoms which belong to any given disease can be traced to their source. Every student in a medical college should make a thorough study of physical diagnosis and thus lay well the foundation for his future work in the office and at the bedside.

Accuracy in clinical diagnosis is only obtained by close observation, much experience and the ability to reason back from effect to cause, and to correlate facts in such a way as to make a complete mental picture of the case in view. All the senses must be cultivated to their highest pitch, for while some men seem to have an intuitive perception that guides them to an unerring diagnosis, a more intimate acquaintance with them discloses the fact that they are hard students, keen observers and acute reasoners, not being satisfied with the superficial testimony of the tongue, pulse, and temperature alone but going into the case through every possible avenue of approach.

But diagnosis is not all of practice, for the best diagnostician may be a very poor prescriber of medicines or other therapeutic measures. Some doctors, like many students, say "Let me make a correct diagnosis and I can treat the case all right" and "I can always tell what to give if I am sure of what I have to give it for." A greater mistake than this was never made by a doctor or student. The physician must know more than the names of a lot of drugs and the diseases for which they are recommended. If his knowledge of digitalis is confined to the fact that it is good in heart disease, (and many know no more than this) and on finding a heart murmur which to him means nothing but mitral regurgitation, he prescribes digitalis, then he is surprised to find that his patient does not improve, if anything grows worse. The doctor blames the drug and sends to another druggist, or changes from the tincture to the fluid extract but with no better results, for the case is one of aortic stenosis in which digitalis is contra-indicated.

Rational therapeutics is based not only on a correct diagnosis and the knowledge that certain drugs are indicated in a certain class of diseases, but upon a definite and clear understanding of the physiological action of remedies and their indication or contra-indication in pathological conditions. The selection of the right remedy at the right time constitutes rational therapeutics. Giving opium for pain and inflammation, quinine for malaria and fever, calomel for biliousness and constipation, because these conditions have been diagnosed and those drugs will allay pain, stop the chills, stir up the liver and move the bowels, is the veriest empiricism and a most prevailing cause of failure in the practice of medicine. I therefore make bold to say, that other things being equal, no two factors will so tend to success or failure as will the doctor's mastery or ignorance of diagnosis and therapeutics. These two subjects form a life time study and are at the command of every physician, offering us ever fresh fountains of learning and inviting us to constant activity of thought and research along the most practical and profitable lines of our life work.

Granting a true diagnosis and the selection of the right remedy, we will have a wide open door to failure, that is the prescribing of inert or occasionally over strong drugs, the greater danger being in the former direction. A given case will go on from bad to worse until the patient dies or you are discharged from the case, when another doctor is called who takes up and carries the patient to recovery. Then when too late, you discover that your diagnosis was correct, your prescriptions were fitted to the case but the drugs were worthless, hence, they had no action and could not stay the progress of the disease nor give nature any aid in dispelling it. This occurs every day, neither the doctor nor the druggist is to blame, each having done his best in prescribing and compounding, the entire fault being in the drugs which had lost by long keeping or through modes of manufacture, any virtue they may have possessed in their original form. Very few of the tinctures, fluid extracts and similar pharmaceuticals are reliable or constant as to quantity or quality of vital principle upon which their virtue depends. This must be so because the crude drugs from which the pharmacopeial preparations are made vary so greatly in the amount of active principle strength, often being entirely lacking in the thing essential to their usefulness so that the product made from them is no better than so much sawdust. Even if every druggist is honest and capable the fact remains that with all his care in selecting pure drugs and preparing them accurately and scientifically he has no assurance that the finished product will contain in each dose the exact or even approximate amount of the alkaloid, glucoside or other active principle that gives to the preparation its therapeutic value. It is the sheerest folly for the manufacturing pharmacist to say that his fluid extracts are all "standardized." Many doctors have stopped using aconite because it would not reduce fever, not recognizing the fact that aconite contains a variable quantity of aconitine, which alone gives it activity, and without which it is worthless.

The physician who best serves the interests of his patrons is the one who will not only keep his old friends but will also be continually adding new ones to his list. After an experience of more than fifteen years I am ready to say that no method of practice will so completely protect the doctor and insure the greatest benefit to the patient as does the so-called dosimetric method. It embodies three great essentials of succeess, viz., certainty of drug action, minimum dosage and economy of price. Neither the mother tincture of the homeopath, the specific tincture of the eclectic nor the

assayed preparations of our regular pharmaceutical houses can compare with the isolated active principles in certainty of physiological action or definiteness of dose. The real physician finds a continual pleasure in watching the forces at work between remedies and disease, between physiology and pathology. This pleasure can only be found in using the active principles for they are the heart and soul of the crude drug stripped of all unnecessary clothing and freed from the weight of all inert bulk. Having such material to work with and a clear understanding of their therapy coupled with a true diagnosis, success should attend the practice of any physician whose education, business acumen and moral character justifies success. The doctor who does not care to carry and dispense his own medicines can easily persuade his pharmacist to put in a sufficient stock of such active principles as are in daily demand by the general practitioner.

Mind you I have said nothing against the druggist and his business nor in favor of the doctor carrying and dispensing his own medicines. As I said before my sole object in writing this paper was to call your attention to a more sure road of success than that found in the old and beaten track of the ancients.

With our modern instruments and methods of diagnosis and these unerring therapeutic agents at our command success should be multiplied and failures diminished until the practice of medicine will be recognized as a definite science as free from error as any of her sister sciences.

CARBO ANIMALIS

By J. A. BURNETT, M. D., Marble City, Okla.

In Comfort's Thomsonian Practice of Medicine, 5th Edition, 1854, I find the following:

"Animal charcoal—charcoal made by burning strips of sole leather in closed vessels is said to be more efficient than the vegetable charcoal as an absorbent and to correct the putrefactive tendency that often exists in bowel complaints of children and in cases of malignant diseases."

"Administered in large doses animal charcoal proves a powerful antidote to all the vegetable poisons."

If animal charcoal is an antidote to all vegetable poisons the fact should be more generally known. I would like to hear from any one who has investigated the matter. Hughes in his Manual of Pharmacodynamics says "That animal charcoal even in its crude state is inert can hardly be affirmed in the face of the experiments recorded by Dr. Hemphil. Daily doses of from 4 to 24 grains have not only disordered the stomach and bowels but have caused the breaking out of copper-colored eruptions of acne and of boils and have developed painful swellings and indurations of the parotid and mammary glands."

The following is from the literature of Merck & Co. which is worthy of remembering:

"Carbo animalis—poisoning by fungi does not often occur, for those versed in fungi do not often make mistakes and those ignorant of the subject are usually so fearful of eating fungi that they do not readily do so without the authority of an expert. All the same the opportunity must not be lost of drawing attention to a remedy which is described by Secheryon as an unfailing one in fungus poisoning. Ordinary wood charcoal is said to be of excellent service although it is not sufficiently recognized. Animal charcoal gives better results because it has a high absorptive power. This preparation should in the author's opinion be at hand everywhere because it is of

use in a large variety of cases of poisoning, such as by alkaloids, metals and even arsenic. In every case of poisoning by strychnine, belladonna, opiates, hemlock, metalloids, copper, tin, etc and especially in fungus poisoning, a tablespoonful of animal charcoal should be stirred up in water and taken at once and then the physician should be sent for immediately. As the remedy is absolutely harmless. Secheryon regards large doses as the best. At the same time a thin emulsion of animal charcoal and water may be given as an enema. Since animal charcoal is so cheap it is to be hoped that Secheyron's statement may be found true in practice as it would scarcely be possible to find a simpler remedy."

The idea has occurred to me that if animal charcoal will antidote so many kinds of poisons that it would prove to be of great value in infectious diseases both as a preventive and in the treatment of same and I believe this should be investigated and its influence in such conditions ascertained.

Potter says: "Charcoal has some antidotal value against many alkaloids and the metallic salts and phosphorus showing their toxic action and postponing their effects probably by a protective action upon the gastric walls. It has the valuable property of absorbing gases but enters into no fixed compound with any mineral or vegetable poison. Fresh animal charcoal is the best though wood charcoal is efficient but in less degree."

There are many valuable remedies that are old ones that have almost dropped out of use that should be better known.

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Sharp and Dohme made an experiment for me and stated that magnesium sulphate was soluble in glycerin to an extent of about 15 per cent.

J. A. Burnett, M. D.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

MISCELLANEOUS NOTES.

Recently there has been a good deal said about the external use of Epsom salts as directed by Dr. Burgess. I have been unable to get the results from the local application that is claimed by Dr. Burgess and in fact I cannot get hardly any results from the New Field remedies that are claimed for them by the author. Double sulphide will not abort typhoid fever in my practice or cut it short or prevent it. It may do it with others but not for me. I have never found the local application of Epsom salts of much value for the relief of pain. It may relieve pains for some but its use in my hands has been in my practice practically worthless as a local pain reliever. I have thought of combining Epsom sats with glycerin for local use. Eli Lilly & Co. made an experiment for me and found that four parts of glycerin by weight would dissolve one part of magnesium sulphate, U. S. P. at 20° C.

The Wm. S. Merrell Chemical Co. made an experiment for me and found that they could dissolve 155 grains of magnesium sulphate in one ounce of glycerin. As glycerin and Epsom salts are both claimed to be powerful extractors of water from the system a combination may make a powerful analgesic and antipyretic and take the place of diaphoretics in cases of fevers, especially if it was used in liberal quantities and to enough surface of the patient.

How would it do to add a little liquid guaiacol to the mixture of glycerin and salts? It is a well known fact that guaiacol is a powerful anti-pretic and analgesic when used locally.

In case of colic the following is of great value:

℞ Chloroform .....ʒjss
Tinct. opium deod. .....ʒj
Camphor .....gr. xv
Oil cajuput .....ʒj
Aqua q. s. ad. .....℥ij

Sig.—Dose one teaspoonful every one or two hours.

To regulate and stimulate labor pains when irregular, short and inefficient the following is of much value:

℞ Fld. ext. ergot ..... m xx
Chloral hydrate .....gr. v
Tinct. capsicum .....m x
Hot water .....℥ij

M. Sig.—This is one dose to be repeated every 45 minutes until pains become regular.

Dr. Woodward in "Intra-Uterine Medication" recommends the following for lacerations of the cervix:

℞ Potassium chlorate .....ʒj
Fld. ext. cimicifuga .....ʒij
Fld. ext. echinacea .....ʒiij
Fld. ext. nux vomica .....gtt x
Simple syrup .....℥j
Aqua q. s. ad. .....℥iv

Sig.—Dose one teaspoonful every 2 or 3 hours.

Dr. M. G. Price says chloral hydrate is well used in rigid os but succeeds best with 30 grains per rectum after it has failed by mouth.

For fever and respiratory troubles:

℞ Tinct. aconti
Tinct. ipecac .....aa m x
Respiton .....℥viij

M. Sig.—Dose one teaspoonful as needed.

Hypodermic medication is gaining ground. It is the most scientific method of using remedies ever discovered.

Dr. J. E. Callaway of Chillicothe, Mo. says the vibrators sold by the W. D. Allison Co. of Indianapolis, Ind., are the best for office use. He says portable vibrators do not amount to much as there is not sufficient power to benefit the patient.

J. A. Burnett, M. D.
Marble City, Okla.

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SABBATH OBSERVANCE.

The early Medical Society in Indiana incorporated the following clause in their Constitution: "Medical men should remember the Sabbath day, to keep it holy; and visits should be, as far as possible, before and after public worship, and during intervals."

Physicians in early times were nearly all members of churches and made it a practice to attend divine worship. Today, the fewest number of physicians do so, and it is not because they can't arrange their professional business so that they can worship. It is because they have not the inclination. Out of twelve physicians in our city but two of us make a practice of arranging our business so as to regularly attend church. Five are church members, who very seldom are seen in church, and several never darken a church door, except to attend a funeral. Three doctors in our town advocate a wide-open Sunday, i. e., saloons, picture shows, and vaudeville. To such, the "evil days have come, and there is no pleasure in them."

The disregard of the holiness of the Sabbath, except in small communities, and in rural districts, is absolutely alarming. A moving picture house will have more men, women and children in it on a Sunday evening than can be found in any one church in the city.

I can recall the time when a physician was unpopular if he was not a church member. Some of them now-a-days are Christians in their wive's names.

D. L. Field, M. D.

RUNDSCHAU

By H. SPEIER, M; D.
Minneapolis, Minn.

THE CARE OF THE MENTALLY DISEASED.

One of the boasts of modern civilization is that it has changed the attitude of society towards the insane to one of humanity. But the barbaric conceptions of former generations have not yet entirely disappeared. In fact, our methods of dealing with the insane are still too much dominated by the conception of insanity, as a manifestation of an unclean spirit, moral perversion or crime. An insane patient before he can become a beneficiary of one of the special hospitals maintained by every state, must undergo a legal procedure quite similar to that of a criminal investigation. Upon information of suspicion of insanity being given the patient, often a sensitive woman, is taken into court and, if "committed" to the asylum, put into the custody of the sheriff, not infrequently kept in jail over night and then taken by deputies to the asylum. Often an injurious impression must be left upon a mind already out of balance by such unnecessary and inhuman procedure. An insane person is a sick person, not a criminal and should be handled as a sick person by physicians and nurses, not by policemen, jailers and thief-takers. With equal propriety should a typhoid fever patient be "committed" to his hospital by a like process; both are suffering from disease.

The average hospital for the insane, state or private is not on the same plane of efficiency as the general hospital. In very few of our states has an attempt been made to raise the character of the insane asylum in consonance with modern psychiatry. Almost everywhere these institutions are little more than houses of detention, overfilled with chronics and pervaded by a political atmosphere which does not foster the scientific spirit.

The development of the hospital for the insane must in the future be in the direction of curative achievement, from custody to cure and from cure to prevention. Dr. Drysdale of Cleveland, addressing the superintendents of Ohio State Hospitals says: "The success of your hospitals will no longer be measured by the executive and architectural ability of the superintendent and his low per capita cost of maintenance but rather by his percentage of recoveries. In other words, the mental hospital of the future will be a well governed general hospital with efficient medical staff, skilled nurses, diet kitchens, surgery, laboratory, hydrotherapeutic and eectrotherapeutic appliances, hygienic surroundings and congenial environment—a true hospital in every sense of the word."

EFFECT OF ECLAMPSIA ON MILK.

Cases occur of seemingly healthy infants, born of eclamptic mothers, who showed no symptoms of illness until the first copious nursing, when they suddenly died without apparent cause. The reason is to be found in a toxic condition of the milk. It seems to contain in much more concentrated form, the same toxins which circulating in the mother's blood cause cerebral disturbances, culminating in eclamptic seizures. This is analogous to what is understood to occur in the case of drugs. Arsenic administered by the mouth to the mother is found to be ten times stronger in her milk than in her urine; the child therefore receives a larger dose of poison through the milk than it did through the placental circulation. When full diuresis and elimination occur in the post partum days, by

the time the breasts begin to secrete actively there is a low grade of toxemia present and the child may escape. But in cases where elimination fails toxemia reaches its height during full lactation with fatal results. Eclamptic convulsions seldom, if ever, come on in pregnant women without uterine contraction having set in. By the compression of the large uterine lymphatics and sinuses, a large amount of the toxin which is probably of fetal origin is forced into the maternal circulation and this flooding of the organism with noxious products finds expression in eclamptic convulsions. In mothers who are toxemic and jaundiced it is advisable to feed artificially for quite a few days and to have the breasts pumped dry once or twice after the maternal toxemia has improved and before the child is allowed to nurse. When the convulsions come on post partum, the maternal elimination should be prolonged until she is freed from the greater part of her toxemia and then the breasts should be emptied before allowing the child to nurse. Where albuminuria persists after gestation, it is well to feed artificially throughout. Children born of eclamptic mothers are far from being healthy. The urine, both in those who die and those who survive, indicates kidney lesions and often there are found signs of general intoxication more or less identical with that of the mother.

MOMBURG'S BELT.

A few years ago Momburg published a method of producing an artificial anemia of the lower half of the body by winding a rubber tube tightly around the abdomen below the ribs and above the umbilicus. It finds its greatest field of service in obstetrics, for it furnishes a simple and ready means of promptly checking profuse uterine hemorrhage. The Rundschau gave a full description of the novel method and predicted that it would soon become one of recognized usefulness. We are pleased to learn from an abstract in a recent number of the Interstate Medic. Journ. that our prediction has come true and that the method is being favorably reported on from many sources. The application is extremely simple. Two or more throws of the rubber tubing are passed and tightened, until the pulsations of the femoral artery are felt to disappear.

The length of time for which this compression of the aorta can be maintained without detriment differs. Momburg, himself left it on up to 45 minutes. Engleman placed it on the same patient three times in short succession, leaving it in position during the total time of one hour and 45 minutes. Sigwert in one instance left the belt on for two and a half hours without noticeable harm and Gerster thinks that the constriction could safely be continued for 3hours.

Most writers note the fact that the constriction nearly always causes strong uterine contractions thus adding an important factor in the control of post partum hemorrhage. Weber applied this belt in cases of profuse hemorrhage due to a retained placenta and saw the placenta expelled spontaneously within 15 minutes without further loss of blood. Manual removal of the placenta can be accomplished without hemorrhage during the constriction. The method has also rendered good service in a number of cases of placenta previa treated by means of vaginal hysterectomy, checking the dangerous hemorrhage accompanying the operation.

Momburg's method may be found applicable and useful in various other conditions belonging to the field of general surgery. It has the great advantage of being always at hand and requiring no special skill.

TERSE AND FORCEFUL.

Governor Stubbs, of Kansas, in addressing the graduates in pharmacy of the State University, said: "Don't sell bum patent medicines!" Certainly not

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THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia with the Collaboration of Wm. Osler, M. D., John H. Musser, M. D., A. McPhedran, M. D., Frank Billings, M. D., Charles H. Mayo, M. D., Thomas H. Rotch, M. D., John G. Clark, M. D., James J. Welsh, M. D., J. W. Ballantyne, M D., John Harold, M. D., and Richard Krety, M. D., with Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume II. Twenty-first Series, 1911. Pages 297. Illustrated. Cloth, Price $2.00. J. B. Lippincott Co., Philadelphia.

A notable article in this volume is "The Cultivation of Medicinal Plants" by Alice Henkel. The article tells what has been accomplished in the cultivation of medicinal plants and shows the future possibilities of this field. The article is illustrated with numerous plates. "The Causes and Treatment of Constipation" by Edward Turton, M. D., M. R. C. P. of the Royal Infirmary, Hull, England, is an excellent, practical contribution. Some of the articles in the volume are:

"Mobility and Malpositions of the Heart," by Thomas E. Satterthwaite, M. D.; "Cirrhosis of the Liver, Chronic Myocarditis, and Aortic Regurgitation," by Joseph M. Patton, M. D.; "Five Cases of Trichiniasis," by J. Norman Henry, M. D.; "The Action of Certain Intestinal Antiseptics on Gastric Digestion," by Julius Friedenwald, M. D., and T. F. Leitz, M. D.; "Appendicitis from a Practitioner's Stand-Point," by M. Howard Fussell, M. D.; "The Progress in the Tuberculosis Campaign in Pennsylvania up to 1911," by Lawrence F. Flick, M. D.; "Preventive Medicine in General Practice," by Joseph P. Remington, Ph. M.; "A Method of Suspending and Fixing the Prolapsed Uterus," by Peter Daniel, F. R. C. S.; "The Surgical Aspects of Typhoid Fever," by Charles Greene Cumston, M. D.; "Circumcision: How to Perform it under Local Anaesthesia," by Benjamin H. Breakstone, B. S., M. D.; "Pathologic Fractures," by Albert E. Halstead, M. D.; "Gastropexy," by G. M. Dorrance, M. D.; "Treatment of the Excessively Fat and Pendulous Abdominal Wall," by Brooke M. Anspach, M. D.; "Experiences in the Surgery of the Caecum," by James F. Moore, M. D.; "The Intravenous Administration of Salvarsan in the Treatment of Syphilis," by B. A. Thomas, A. M., M. D.; "Some Advances in Obstetrics During the Last Twenty-Five Years," by A. Lapthorn Smith, B. A., M. D

RUNDSCHAU.

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elegant phraseology and probably a shock to some of his more dignified hearers. But in all likelihood this homely form of advice produced a deeper and more lasting impression on the minds of those for whom it was intended than the most polished stilted sentences as one usually meets at similar occasions. Abraham Lincoln's contemporaries were no doubt often scandalized by the homely even crude dress in which he liked to clothe his advice.

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THE TREATMENT OF PTOMAINE-POISONING AND OTHER CONDITIONS CAUSED BY BACTERIA.

By DRS. GORDON G. BURDICK and THEODORE C. F. ABEL, Chicago

In considering the treatment of conditions produced by the ingestion of bacteria and their products, we have to consider, first, the nature of the substances ingested; second, their action on the system after ingestion; and third, their source.

As we have seen in the three conditions considered in our last chapter, namely true ptomaine-poisoning, botulism and Gartner meat-poisoning, we have to deal in the first condition with poisoning by an already elaborated chemical substance; in the second with the action of a pre-formed toxin capable of uniting with nerve cells; and in the third with a true infection by a pathogenic bacillus containing an endotoxin. Each of these conditions must be met in a different manner.

Ptomaine-poisoning, or poisoning by products of putrefaction, must be considered as simply the action of a poison belonging to the neurotic group and resembling in its structure the vegetable alkaloids, and treated like any other form of chemical poisoning. The bacteria which have produced the poison by their activity, and have been ingested along with it, need not be considered as a factor because, being saprophytes and incapable of flourishing in the animal body, they soon become exterminated. It is also more than likely that any thorough cooking of the food will destroy them, while it does not destroy the ptomaines, which are very stable bodies. At any rate the symptoms are due to the products and not to the bacteria.

The indications then are, first to remove as much of the poison from the alimentary tract as possible; second, to counteract its effects by chemical or physiological antidotes; third, to use such sustaining measures as may be necessary to tide the patient over the effects of the poison. In other words, the same routine treatment as would be used in any other form of poisoning.

The first indication, elimination, can be no better accomplished than by high bowel flushings. In this way, whatever poison may remain in the intestinal tract will be removed, and as most of the absorption takes place from the bowel, this is usually sufficient. Only rarely is it necessary to use the stomach tube or emesis, although if the symptoms are urgent, this should not be omitted. As a rectal enema only washes out the lower bowel, and the passage of the colon tube is not always easy of accomplishment, it is advisable to place the patient in the knee-face position, and instruct him to breathe deeply while the enema is being injected. This position causes the bowels to fall forward and allows the injection to pass into the small intestine. After well washing out the bowel, intestinal antisepsis should be maintained by the administration of the sulphocarbolates, salol, or similar compounds.

As to the second indication, that of antidotes, on account of the somewhat erratic nature of the symptoms, being due as before stated to a mixture of substances, a true antidote has yet to be found. Probably atropine comes as near to it as any. Where there is collapse, stimulation is necessary, and strychnine or alcohol may be used. When the pain is very severe, Hoffman's Anodyne may be necessary, although this should be avoided if possible.

So far we have had reference to such putrefactive products as are contained in ingested food. But ptomaines are formed in the body itself by the action of constantly-present bacteria, and if allowed to accumulate may produce the same condition as if ingested. For instance, the ptomaine cholin is continually produced by the breaking-down of nerve substance, being a component part of lecithin. Cholin itself is not very toxic, but can be converted into the ptomaine neurin, which is very toxic. Other ptomaines are formed by the action of bacteria on the hexone bases. As most of these processes take place in the intestines, the necessity of thorough cleansing becomes apparent.

As to the prophylaxis, it is sufficient to say that any food which has been kept for any length of time, even on ice, is dangerous, referring of course to nitrogenous food. The habit so prevalent in this country of keeping large quantities of food-stuffs in cold storage for months, with the object of keeping up or raising prices, cannot be too strongly condemned, for while cold will prevent active decomposition, thereby masking the true condition, still there are changes going on in the food all the time, some of which may cause the production of ptomaines. Of course only few people will eat putrid food, but it does not need to be putrid to contain ptomaines. As a matter of fact they appear early and disappear at the height of decomposition. Else no one could eat Limburger or Roquefort cheese, or tainted game, with impunity, as is a constant habit among some people.

In the second class of cases, of which botulism or sausage poisoning is the type, we have to deal, not with a definite chemical poison, but with a toxin. As is the first class, the bacteria themselves need not be considered, and for the same reasons. And while thorough cooking will not destroy ptomaines, it will easily destroy the botulinus toxin. So that it is necessary to eat raw or imperfectly cooked meat before this condition can ensue. But if the toxin has been ingested, the treatment sufficient for ptomaines it not sufficient for the toxin, as we have to deal, not with a definite chemical substance, but with a body of unknown nature and composition, and capable as we know of anchoring itself to cells by means of its haptophore groups, and so exerting its toxic action.

It seem that botulinus toxin, like that of tetanus, has a special affinity for the nerve cell. As a matter of fact the symptoms are largely of nervous origin.

The indications are then, firstly, to eliminate as much of the toxin-containing food as possible, to prevent further absorption, in the same way as we did in ptomaine-poisoning. Secondly, to counteract the toxin by a body capable of meeting it on its own ground and nutralizing it—that is, an antitoxin. This we have in antibotulin, which has so far been used only in animal experiments but with excellent results.

As to prophylaxis, we have the additional safe-guard, that even if toxin-containing meat must be eaten, it may be rendered harmless by thorough cooking. Even if the temperature does not reach the boiling point, the toxin is destroyed by an exposure of 60 degrees C. for a short time and the bacillus itself is harmless when introduced into the body.

In the third group or the Gartner meat-poisoning cases, the symptoms depend on the presence of pathogenic bacilli in the food, which on entering the body multiply and produce the disease. As the symptoms are not due to an extracellular toxin like that of botulism, but rather to a bacteremia, where bacilli instead of toxin are present in the blood, we cannot make use of antitoxin. But we have another weapon at hand that will attack the bacteria directly, namely, the production of active immunity by means of a vaccine. The bacteriolytic antibodies produced in the serum in this manner will destroy the bacteria sooner or later.

However, the same procedures as to elimination of the contaminated food should be used, and any other indications met with that may arise.

As far as prophylaxis is concerned, boiling the meat does not give the protection that might be expected, as the temperature in the innermost portions often is not sufficient to destroy the bacilli, and the toxin being an endotoxin cannot be reached, being locked up in their bodies. And while failure to kill the bacillus botulinus makes no difference, as it does not thrive in the body, the bacillus enteridis will thrive and produce disease after it enters. Possibly vaccination would, by producing active immunity, prevent infection, but the best way is not to eat suspicious meat. Where epidemics exist, however, vaccination might be useful, to prevent transmission from one individual to another.

To resume, we have then three conditions, one of which must be treated as a chemical poison; another as a toxaemia by an antitoxin and the third as a general infection by a vaccine. Each of them, however, calls for the strictest kind of eliminative measures and intestinal antisepsis.

Another group of cases might be mentioned here, that is where food contains the germs of other infectious diseases, such as tuberculosis, actinomycosis, anthrax, etc. It is evident that each one of these will be a law unto itself, and must be treated accordingly. In all cases of enterogenetic infection, however, the value of proper elimination and intestinal antisepsis in preventing pathogenic bacteria from gaining a foot-hold stands beyond question. And most of the pathogenic organisms are destroyed by thorough cooking. This does not apply to spores, hence the danger of eating anthrax-infected meat, even if thoroughly boiled, although it is pretty well conceded that ten minutes boiling will destroy anthrax spores.

(To be continued)

POTASSIUM HYDROXIDE

By W. STUART LEECH, M. D., Roseau, Minn,

Diseases of the skin are subject to and undergo the same laws as disease in other portions of the anatomy. While there is no doubt of the diagnosis of the cases here recorded, the main purpose of bringing them before the public is to make known the treatment, which is essentially original in the manner of applying the potassium hydroxide.

M.——Aged 36, Swede, non-specific history, single, merchant, thick, of robust constitution, with the exception of a few scaly eczematous appearing patches resembling seborrhoea congestiva on the cheeks and ears of ten years duration. I will state here the well known fact that the commonest seat of seborrhoea after the forehead is the alae nasi. Lupus erythematosus as a rule is on bridge of nose and cheek. The close observer will notice that the scales of seborrhoea are yellow and greasy in contradistinction to the dry and greyish scale of lupus, as was typical in this case.

Several good physicians had made snap diagnoses of eczema and purpura simplex in his case, and as a result the patient had been through the whole category of established prescriptions recommended for these afflictions with profound discouragement to the physician and leaving the patient pessimistic in the extreme. My colleagues informed me of the various therapeutics employed. The patient placed himself in my hands more or less reluctantly for treatment. Patient insisted that I should guarantee him a cure for a stipulated sum, viz.: $50.00, which was in point blank manner refused with the statement that I thought I could cure him, but would guarantee the cure of a scratch on no one.

His appearance at the office was requested every day for ten days. As his general health appeared good with a normal amount of red blood cells present, his treatment was simple. Beyond the regulation of diet, each day I carefully and thoroughly penciled with a cotton mop all of the diseased areas with liquor potassii arsenitis. By the seventh day it showed marked swelling of all the parts, which continued up to the ninth day, when eyelids were nearly closed and patient much frightened. Treatment was discontinued and within three weeks swelling had subsided and to the surprise of patient and frinds not a vestige of the disease could be seen. It is eight years since, and patient is enjoying the best of health.

M. W.—Aged 55, American, veteran, had enjoyed good health until recently when he noticed the "seed wart" on right eyelid, giving him more or less trouble. It had been irritated by the application of carbolic acid and was now growing rapidly, showing the central waxy look characteristic of epithelioma. Being informed of its malignancy he insisted on going to a surgeon. One of the best surgeons in Minnesota took charge of case and operated immediately. Two years later the malignancy had ended him.

Miss H.—Scandinavian descent, aged 44, fair complexion, anaemic, lived in country, called demanding attention for the large pedunculated naevi on chin and a growing "seed wart" one inch in length on left upper eyelid. The wart besides being unsightly was beginning to pain and weigh down the lid. No treatment had been taken. The waxy or horny perles (cell mates), which are characteristic of the metamorphosis of early epithelioma were to be seen in one of these growths.

Twice a week for six weeks I had her come to the office. She was placed on a good iron and arsenic tonic to be taken five times a day after her meals. Local treatment consisted of using an electric needle dipped in liquid potas-

sium hydroxide and applied through the growth, turning on current as is done in the electrolytic work for hypertrichosis. As this process is very painful and before each seance a strong solution of cocaine was applied by gentle friction to the diseased parts and the surrounding integument. No inflammation developed at any time following the treatments. It is now the second year and no symptoms of the old trouble returning. I am fully satisfied that if the knife had been used on this eyelid of Miss H.'s, she would now be joining Mr. W.

HEMATURIA

CHARLES J. DRUECK, M. D., 438 East Forty-Sixth Street, Chicago, Ill.

Hematuria, (the presence of blood corpuscles in the urine) is always pathological and appears in a number of different conditions. The blood may come from any part of the urinary tract and, while the determination of its source is sometimes easy, at other times it is difficult, if not impossible. Frequently the physician is pinned down by the patient or his friends for a definite diagnosis and where this differs from what has been previously offered by some other medical man it disturbs the confidence of the patient. An example of this I shall cite later of a child who had hematuria for about a year and which had been said to be due to kidney disease. When I diagnosed cancer of the kidney the family were very skeptical and it was only after the mother felt the tumor that she believed in my judgment.

The character of the blood in the urine and its time of appearance, whether clotted or diffused, profuse or scant, and its relation to the act of urination differs and indicates somewhat the part of the urinary tract involved. The chemical reaction of the urine also affects the color (acid urine is dark red while alkaline urine containing the same amount of blood will be bright in color.) Of course if the amount of blood is small it may not materially influence the color of the urine. The albumen test will however show even very small traces of blood.

Guyon (White and Martin) divides the causes of hematuria into trauma, congestion, inflammation, organic disease and foreign bodies. Sometimes the pathology seems hardly sufficient to create the disturbance in the case at hand. The amount of blood in the urine is variable. If slight it may not show microscopically but if profuse the urine appears bloody. The miscroscope is always necessary to verify the clinical picture. If the urine contains pus as well as blood the blood will be found in the sediment leaving the liquid part of the urine uncolored.

The more diluted the urine is the less rapidly will the blood clot, but the more rapidly will it diffuse and dissolve. Blood clots in the urine have little diagnostic significance except the long, thin, cylindrical. These resemble earth worms in appearance and are formed in the ureter. Short cylindrical clots have no significance. The color of the clots varies from yellowish red to thick, heavy, dark red. The fibrin clots closely resemble broken pieces of cancer tissue.

We will divide the sources of hemorrhage, (2) Bladder, and (3) Urethra. Enumerate the causes in each division and see what differential picture we can draw.

KIDNEY.

It has been said that renal hemorrhage is more protracted than the bleeding of the bladder or urethra, but that is uncertain. In all diseases of the urin-

ary tract the periods of bleeding are more frequent and intense as the disease advances.

(a) Chronic diffuse inflammation of the kidney has no hemmorrhage.

(b) In the following conditions the hemmorrhage is slight and subsides as the other symptoms are relieved: Acute parenchymatous nephritis, (this is frequently the result or accompaniment of variola or scarlet fever: amyloid degeneration, abscess, embolism, hydatids, purpura hemorrhagica and phlebitis (uterine or crural).

(c) In this group the hemorrhage is profuse and obstinate, cystic disease of the kidney, chronic interstitial nephritis (here the hemorrhage frequently alternates with hemorrhages from mucous membranes), malignant diseases (hemorrhage here is brought on by slight or undiscernable cause; it is made worse by exercise, but is not much relieved by rest.) Guyon says that the hemorrhage of kidney tumor is intermittent. It will stop and then suddenly reappear. The variations occuring frequently. Sometimes the ureter is blocked with a clot and the urine is clear for a few hours, then the clot is suddenly released and the hematuria appears. The presence of renal casts shows positively that the blood is from the kidney. Tuberculosis of the kidney shows an intermittent hematuria which is brought on by exertion but the urine contains pus and debris which remain in solution and do not tend to settle out. Pain is also present but is variable, sometimes, however, amounting to a true renal colic. The hematuria of renal calculus is excited by the slightest muscular strain or violence, such as would not cause any disturbance, under normal conditions. The bleeding is promptly relieved by rest in bed. There is always more or less pain and renal colic which is reflected from the lumbar region in various directions. The pain of renal colic is quickly relieved by rest in bed but not the pain of tuberculosis or tumor.

(d) Drugs may also cause hematuria, as turpentine, carbolic acid, cantharides and mercury. It must also be remembered that senna and rhubarb cause the same reddish-brown color of the urine simulating hemorrhage.

(e) Trauma—In severe injuries and malignant disease the blood may be bright red and the hematuria may appear to be terminal. In trauma the location and character of the injury will determine somewhat the source of the blood, i. e., a kick in the back, followed by hematuria, would suggest a contused or lacerated kidney, while a blow on the abdomen and particularly in the hypogastric region would indicate a ruptured bladder.

A heavy dragging sensation, due to the renal congestion sometimes precedes hemorrhage from these parts or an attack of renal colic may apear. These pains do not occur with hemorrhage from the bladder or urethra.

BLADDER.

Associated with bladder lesions that cause hemorrhage we usually find cystitis and alkaline urine, and if so, the muco-pus and phosphates so cloud the urine as to alter its appearance and prevent the easy detection of blood. When the urine is ammoniacal the hemaglobin is frequently dissolved out of the corpuscles and the cells are then called blood shadows. These are sometimes confusing when found in the urine. They appear as small bodies or rings, the size of red cells and have no nucleus.

(a) The hematuria of vesical calculus is terminal and the blood is fresh. The hemorrhage is moderate unless prostatic disease complicates. (b) Prostato-cystitis and (c) vesical tuberculosis also have slight terminal hematuria, and in this symptom closely resemble stone. (d) Polypi of the bladder and (e) fibrous tumors usually show slight or moderate hemorrhage,

but (f) villous growths bleed profusely and the blood forms a reddish-brown sediment. A vesical tumor so long as it is not near the bladder neck, may not show any other symptom except hemorrhage and is not palpable in its early stage, and thus the hemorrhage is frequently considered renal. Of course, if the colic or some other localizing symptom apears that will determine the source of the bleeding. (g) Varicose veins of the neck of the bladder sometimes rupture and cause quite a sharp, free hemorrhage.

A cystoscopic examination must be made in all doubtful cases of hematuria. When the hemorrhage comes from the bladder we have besides the visible blood, frequent micturition and pain in all inflammatory, obstructive or traumatic cases. A bimanual examination will frequently detect changes in the bladder wall or prostate, or the presence of a tumor. Vesical tumors ultimately necessitate catherization and then cystitis is soon added to the clinical picture. When the blood is diffused throughout the urine and the last urine contains a quantity of pure bright blood, it is probably vesical or prostatic bleeding.

URETHRA.

Hemorrhage from the urethra usually precedes the flow of urine and also recurs between the acts of urination, but if it does not, it may be squeezed out by stroking the urethra.

(a) Acute gonorrhea, a mild hemorrhage may occur in any case.

(b) Acute posterior urethritis presents only terminal hematuria.

(c) Chancre within the urethra sometimes causes hemorrhage that may be obstinate and recurrent.

(d) Neoplasms and injuries to the urethra sometimes cause a hemorrhage that may be alarming.

In any case of hematuria the signs and symptoms other than those of the urine itself, must be considered. Because the trouble may be outside of the urinary system. Blood appearing at the beginning of urination (initial hematuria) the later urine being clear, must come from the urethra. If the bleeding is from the prostatic urethra, it may flow into the bladder and in this condition the last urine is often almost pure blood (terminal hematuria.)

TREATMENT.

The great variety of causes of hematuria divide themselves into those that must be treated therapeutically and those that can be arrested mechanically. During the bleeding, rest in bed, liquid diet of buttermilk and diluting drinks to lessen the tendency to coagulation, and a soft, free stool. Drugs by mouth are of doubtful value. Guyon gives turpentine, three drops, every four hours for 6 or 8 doses. Ergot in full doses is also recommended; oil of erigeron and gallic acid have also been used. Any of these may be of value in moderate and persistent hemorrhage. In sudden profuse bleeding that threatens to exsanguinate the patient, a full dose of morphine to quiet the restlessness and anxiety. Next, empty the bladder with a catheter or suction pump as needed and then irrigate with hot antiseptic of silver nitrate 1-2000 or hydrastis one ounce to the pint. After this the catheter should be held in the bladder until the bleeding ceases.

If this does not control the bleeding a perineal cystotomy should be performed. All clots removed and a drainage tube inserted. This must be done under the most rigid asepsis because the bladder is very liable to infection after the hemorrhage and particularly so in cases of tuberculosis or neoplasms. Prostatic hemorrhage is often relieved by opium suppositories in the rectum and by suprapubic compresses.

I wish to cite a couple of cases that may be of interest at this time.

Case 1.—C. H., a boy 12 years old. Four years previously he was vaccinated and from that his parents date

his trouble. About two years afterward he suffered a hematuria of slight amounts every couple of days for about a month. During this time, the parents say he appeared otherwise healthy. For the next year he had occasional hematuria but most of the time the urine was normal. There is no record of the urine at this time except the parents' statement. For about a year new blood has appeared constantly in the urine and has increased in amount until recently it was nearly always present and in large amounts. The urine at best is heavy and smoky brown in color (at times it seems to be largely blood.) As his mother says "It is pure blood that runs from him." During the first year of this boy's illness no positive diagnosis could be made. About six months ago a tumor of the right kidney became palpable and continued to enlarge until it nearly filled the right side of the abdomen. The boy suffered very little pain, only a dragging sensation in the region of the kidney but grew waxy and anemic. The features were distorted by the anasarca. The boy cut his hand while playing with a knife and although the cut was one and one-half inches long and one-half inch deep it bled no more than a scratch. After his death we did a partial postmortem and found the right kidney about the size of a cocoanut and somewhat the same shape. It was soft and boggy, quite friable and easily crumbled under the fingers. The pelvis of the kidney was filled with a granulating mass but there was no blood or blood clots. I was surprised at not finding clots or free blood in the pelvis of the kidney and very little on section of the growth. The liver was small and did not present any secondary growths. All of the abdominal organs were very pale. Death was really due to exsanguination. No post was made of the chest as the parents objected. I was not permitted to take out the tumor but section of a small piece showed it to be sarcoma.

During the time this boy was under my care I went through the whole list of drugs supposed to be good for hematuria but none had any effect on him.

Case 2.—Mrs. A. had been a nurse. Following the birth of a baby she was troubled with paresis of the neck of the bladder which persisted after she was up and about. She insisted on catheterising herself. Later she developed a sharp cystitis with stone formation. Every couple of days she voided bits of calcium phosphate and as these pieces broke away there was a considerable free hemorrhage. Sometimes this hematuria would accompany only one urination and again would be quite free. In this way it was intermittent but persistent and blood corpuscles could be found in the urine at all times. Of course it had a gradually exsanguinating effect.

I made a vesico-vaginal opening and found the mucous membrane sheeted over with this stone deposit beneath which the surface was ulcerated and granulating. Under local treatment and drainage she soon recovered.

Case 3.—About three years previously I had operated upon this man 37 years old for hemorrhoids. They were internal and so extensive that I removed considerable mucous membrane. The result was very satisfactory as far as the operation was concerned and the man has had no other rectal inconvenience since. When the bowels moved first after the operation (on the fourth day) he had quite a terminal hematuria and ever since then whenever the bowels are constipated and the movements accompanied with straining there is danger of this hematuria. There are no other symptoms of anything. The hematuria is always terminal and persists for the next few urinations. Sometimes it is quite sharp. It may recur in a couple of days or he may go months without a sign. During the interval there frequently is no blood in the urine.

He frequently passes three or four months without any trouble and once went eight months. The trouble is always brought on by constipation. He is caused so little trouble that he objects to a cystoscopic examination and I have never made one. I believe this is a case of varicosed veins about the neck of the bladder or the prostatic urethra due to my operation upon the middle and superior hemorrhoidal veins when I removed the piles.

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LITTTE THINGS

By GEORGE L. SERVOSS, M. D., Fallon, Nevada

A short time ago I ran across an editorial in one of our leading medical journals on "The Art of 'Making Good,'" in which the editor said, "The finest success in the world consists in 'making good' with the little things, the things too small to attract the attention of any except the most discriminating—and in doing a little better work on each succeeding day." He goes on farther and says, "The finest success in medicine consists in 'making good' with the common, everyday ailments, things too small to win big reputations. The man who masters every one of these little problems, and every succeeding day attacks a new one, will some day master the great problems; and the reward must follow, 'as the night the day.'"

There is more truth than poetry in the above remarks and they apply both to medicine and surgery, as there are little things in each, which, if mastered lead toward greatness as surely as does the sun travel from East to West. As the editor says, it is the little things through which we build our reputations. Those doctors who study the mites invariably become greater and broader than do those who endeavor to envelope the giants primarily. It sounds well in the newspaper to read that Doctor Soandso has done a wonderful operation and if this operation were a necessity that the life of a person might be saved the Doctor has accomplished much, but there are many little things of just as much importance as are major operations. Only recently there came under my observation a man suffering from an infection of the arm and threatened with general, as well as local asepsis. At the time the case first came under observation it was one of comparatively minor importance. Prompt attention to the primary wound, with a local wet dressing of sublimate and subsequently of sublimate solution applied hot, overcame the infection within forty-eight hours. Internally this man was given a cleanout with calomel, podophyllin and a saline. This attention to a little matter undoubtedly saved the man a serious stage, if not his arm, or possibly his life. Just this little thing brought me other cases, some big and some little.

A man drops into your office with a badly coated tongue, a worse breath and a general "tired feeling," but with no symptoms pointing to any particular specific condition. It is a little thing, but one which both the patient and yourself desire corrected as early as possible, he that he may obtain ease and you because you recognize the fact that such a condition may be a fore runner of something serious. Suspecting toxemia you get busy with your urinalysis outfit and determine the urinary conditions. If you find the acidity above normal, and the associated presence of indican, you know that you have a patient loaded down with toxins and marked indications for eliminative treatment and you get busy immediately with the initial clean out, followed by such treatment as will increase the func-

tions of the eliminative organs. If there is a rheumatic tendency you exhibit colchicine until the therapeutic effects are noticeable and then continue it in such quantities and at such intervals as will maintain this effect. In addition, if there is marked acidity, you add alkalis to your eliminative agents. You clear out the bowel and thereafter keep it clean by the use of one of the intestinal antiseptics, preferably the sulphocarbolates. If constipation exists, you see to it that such a condition is corrected. Here again you have tackled one of the little things. Your patient is not really sick, just "porely" as the Southern Darky would say, but by "bringing him out of the kinks" you have added another "notch" on the handle of your gun of reputation.

How often do you have a man or woman come into your office complaining of such a simple thing as headache. If you thoughlessly give the patient a palliative remedy he or she obtains relief for the time being, but with a recurrence of the pain either the next day or very shortly thereafter. However, if you go to the root of the trouble and ferret out the cause and remove it there is a complete cessation of the headache and you are pointed to as one who almost, if not quite, performs miracles. It is a simple little thing, even in your own mind, but by bringing about permanent results you have added to your reputation in a way that brings cases of more import to your door.

A man comes to you with his finger practically severed, and if you are again thoughtless you complete the amputation, but if you give the matter a second thought you take a few stitches, apply a dressing and trust to luck and nature to do the rest—give the patient an entire member, and in nine cases out of ten luck and nature will be good to you and your patient will point to you as the doctor who knows how to do things. Just anothr little thing that adds another "notch."

Croup is looked upon as a serious malady and in some cases it is, but when you appear upon the scene with your iodized lime and hot water and give your remedies to effect, which means to the relief of the angina, you have accomplished wonders in the eyes of the little sufferer's parents, but it is one of those little things that happen right along in your practice and one which you give but little consideration. The baby's mother, on the other hand thinks that you are a "wonder" and never ceases telling other mothers about your great accomplishments.

You are called, with great haste upon the part of the messenger to see a patient who is reported as bleeding to death from a pulmonary hemorrhage and upon arrival at the scene of the trouble you give the patient a full dose of atropine hypodermically and through forcing the blood to the efferent vessels the hemorrhage is soon under control. In another case you are called upon to treat a collapse with cold, clammy skin and contracted pupils and again you call upon atropine as your assistant and shortly see a return to the normal. In your daily routine these are matters of absolute simplicity, but in the eyes of the layman the results obtained are wonderful. Little things again, but how they do add to your reputation.

A woman in a crowd faints and if you can get a tablet of glonoin on her tongue you see her face become rosy and she recovers promptly. Just another little thing. An internal congestion causes more or less spasmodic pain and here again a little dose of glonoin, through determining the blood to the periphery, brings about speedy relief, which remains permanent if followed by strychnine and hyoscyamine, both of which sustain the effect of the initial dose of glonoin. All little things, but they count.

In the eyes of the laity urticaria is rather a serious condition, while you and I consider it rather simple, especial-

ly that of an acute character. We prescribe a saline and follow that with intestinal antiseptics and our patient goes on his way rejoicing and singing our praises.

A patient comes to us suffering from an acute diarrhea. If we still maintain the old idea that an opiate is indicated we give either paregoric, laudanum or morphine and lock up the bowels, with the result that there will be a recurrence. If we have faith in the newer idea, we forget all about the opiates and instead aid nature in her efforts to rid the bowel of an irritant by exhibiting calomel and podphyllin, followed by an saline and subsequently by antiseptics and with a permanent cessation of the abnormal discharges. In your eyes and mine, we have done nothing particularly wonderful, but our patients will tell others that we are the first doctors they have ever known who have obtained like resuts and through such results our practice will be augmented.

Traveling farther and coming in contact with penumonia, we "go after" the fever from the outset and endeavor to reduce it and hold within bounds from the beginning and in this way it frequently occurs that we see cases aborted, and that in spite of the fact that some of our best writers tell us that tihs is a "self limited" disease which will show either a happy or an unhappy termination, regardless of therapeutic interference. Given a case of this sort, with a pulse of 100 or more per minute, we exhibit aconitine in 1-134 grain doses, at intervals of from fifteen minutes to hourly intervals until the pulse drops to 80 per minute, which rate is sustained by subsequent lengthening of the intervals, returning to the shorter intervals, if necessary and see our patints pass into convalescence rapidly and without going through the crisis, with a pre-crisis rise of temperature. In the minds of those who pursue this course it is a matter of routine littleness, but in the minds of the relatives of the patient we have accomplished wonders.

There was a time when typhoid fever was feared by both patient and doctor alike, but today we simply clean out the intestinal canal and give sufficient of the sulphocarbolates to keep the fetal discharges of normal consistency and without odor and see our patients recover early and with none of the complications so frequently seen under the older systems of treatment. With the initial clean out and subsequent antiseptics to effect, there seldom follows hemorrhage or perforations and our patients show recovery much earlier than the specified time. Little things, but how they do count in the upbuilding of our reputations.

Once in a while we are called early to take care of a furuncle or carbuncle and we push calcium sulphide to the limit, or until every secretion smells loudly of H_2S and there is a complete subsidence of the swelling and obliteration of the infection and without the formation of pus, or the necessity of surgical interference. The doctor who accomplishes a thing of this sort is a wonder and the people never cease talking of a result of this sort and he gains cases through another little thing. He should bear in mind, however, that calcium sulphide in such cases should be given in sufficient dosage to obtain quick results, not less than ½ grain at half hourly intervals, with subsequent smaller doses at longer intervals. If he uses small doses, at long intervals, from the beginning, the results will be nil, and he will lose, rather than gain, a satisfactory reputation. Calcium sulphide is one of the little things, but it works wonders in all infectious conditions and is much more valuable than is thought by the majority of the profession.

Of course an appendectomy, or other major operation, nicely done and followed by satisfactory results, adds to the reputation of the operator, but if he be a general practioner, even work of this sort would fail to sustain that rep-

utation if he be unsuccessful in the handling of the little everyday things which are always happening. Major operations are not a thing of every day occurence, but there is hardly a day passes but that we see at least one case of toxemia, or other so-called, simple little thing, and it is our success with the latter which makes our reputation. Consequently, as the editor says, we should study the little things and endeavor to find a new one every day and eventually, through the matters of seemingly minor import, we will become great, not only in our own knowledge, but in the eyes of the people as well. As he says, do not forget the little things, for fear they will grow big.

MEDICAL PROGRESS

By D. L. FIELD, M. D., Jeffersonville, Ind.

(Continued from page 210 August Recorder)

The occupation of a general practitioner of the healing art, whose duties are continuous, and necessarily routine, is not conducive to original research in any of the fields of science, familiarity with which, is, nevertheless, essential to the education of an accomplished physician.

With all our modern facilities for printing and distributing knowledge, everything is known as soon as thought; and much material is contributed to the rapidly increasing volume of medical literature, that does not add to the real value of our large stock of knowledge.

Ambition and expectation pertain to youth. To review the past, and sit in judgment upon results, are among the privileges of age.

Is it true that such great advances have been made in the theories and practices of medicine within the professional life-time of veterans who are still engaged in the art of healing?

Is our knowledge of medicine really more voluminous and accurate, and our application more intelligent, and successful, than were the knowledge and practice of the physicians of the generation that preceded us? Because of our better knowledge of some diseases and the effects of newer agencies, are we accomplishing more cures, and lengthening the span of life thereby; or are we still hampered by the ignorance, and superstition of the people; which circumscribes our powers, and retards our progess?

These are not idle questions, nor are they so easily answered, as to be devoid of interest. That great changes have taken place in the practice of medicine within the observation of the older members of the profession and the literature, if not the knowledge of the profession has been greatly augmented, —no one will pretend to deny. No one man, if he had nothing else to do, could now read but a small part of the medical books issued by the medical publishers, from year to year, to say nothing of the medical journals. Medical schools are multiplying, and flourishing, and sects in medicine, based upon pretentions of new discoveries of the principles of healing; and some of these protesting against what they term "old abuses" in theory and practice, have sprung into existence within the period mentioned, i. e. within a generation.

As I said, perhaps, in some preceding article, fifty years ago, the best equipped medical schools could boast of but six chairs, two of which were sometimes filled by one and the same professor, and the western practitioner, who possessed a dozen medical volumes, had reason to congratulate himself on the completeness of his library. I said before, that the City of Philadelphia was the medical Mecca toward which every

devotee in the profession, reverently turned his head and bowed.

Wister's Anatomy, Dunglison's Physiology, Ebert's Practice, Dorsey's Surgery, Deweese's Midwifery; and later Druit's Surgery, Erichson's Surgery, Watson's Practice, Wood's Practice, and Henry's or Sellimun's Chemistry, were the standard American textbooks, —excepting Druit, Erichson, and Watson. But every well informed doctor was expected to have the above named volumes; and of course, he couldn't get along without Dunglison's Medical Dictionary,and either Taylor's Medical Jurisprudence, or Guy's Forensic Medicine.

Medical libraries now are generally voluminous, with the constant acrition of new publications. To keep up, a physician of today spends all his spare money and time on new books. Something new is being discovered, and put forth so rapidly that unless one is a constant reader, he will be left behind in the dust.

Medical schools now can't get along without twelve chairs, and a score of adjuncts to complete the course of didactic instruction, and practical demonstration.

The practice of medicine, because of the inability of any one man to master all the knowledge of the present, broadened science, has naturally developed numbers of specialists. The family physician,—if there is such a thing in existence yet,—now sends his surgical cases to a surgeon, sore eyes, to the oculist, uterine cases to a gynecologist, and so on and so on. He used to do it all, even to "pulling teeth," but no more of that now. I have "pulled the teeth" of the late Colorado millionaire, W. S. Stratton, when he was a boy, and young man. Jeffersonville was his birthplace, and his home up to 1873.

Fifty years ago, by two years study, including attendance upon two full courses of lectures, of sixteen weeks each, an ordinary student could acquire all that was supposed to be known of medicine, and took rank as an educated M. D. That was what I did, and what I was supposed to be. However, I studied medicine under my father, and visited the sick with him, from my boyhood. In those days, any man who had practiced medicine for years, and attended a course in college, was given a diploma.

The great change in the volume of medical knowledge, attended by a corresponding multiplication of methods and appliances for the treatment of diseases, compelling a division of labor among practitioners, is not more marked than the changes that have taken place in the details of practice, as a result of new or modified views of disease itself, and the relation of medicine to physiological and pathological processes. It has even been a characteristic of human ignorance to all otherwise inexplicable phenomena, to the intelligence and power of hypothetical beings, good or evil, or to regard them, at least, as the sensuous manifestation of invisible, impalable, though real entitris. For centuries, nearly all diseases, as well as other natural phenomena of a disagreeable character, were commonly attributed to the machinations of the devil, accomplished by the employment of imps and witches. The practice of the healing art was not much more than a species of jugglery, or black art, by which one kind of magic was counteracted by another. Survivals from such theories of disease and such practices were observable in the profession a little over fifty years ago. Diseases then were so many hostile entities invading the human body from without; and fixing upon this or that organ, as a matter of choice, or pleasure. People were "seized" and "attacked" by disease. They were thought to abandon one organ and sieze upon another.

The practice of medicine was a sort of antagonistic invasion of the body by

drugs or otherwise, an effort to expel the disease.

Thus the resort to blood letting, vomiting, purging with large doses of mercury and blistering the part supposed to be attacked. After the disease had been "driven out" efforts were made to restore the strength of the unfourtunate (or fortunate?) being by stimulants and tonics. The lancet, calomel, jalap, antimony, and ipecac, were the sheet anchors; and no one ignored cantharides. All manifestations of disease were generally treated symptomatically. Fever was fever, no matter how instigated, or what adjective qualified it. It was treated as pyrexia, and was combated by an emetic, purgative, and warm drinks. In vascular excitement, they bled, purged and starved. Vesication was resorted to to transfer the disease from the inside, to the outside. Ptytalism was regarded as the "white flag" of surrender in inflammatory or febrile diseases. Nearly all women were bled once, if not more, during gestation. Many were bled during parturition. Now, bleeding is obsolete. Emetics are rarely given in the treatment of ordinary diseases. Very active purgation, is but little prescribed, compared to what it once was, especially large doses of mercury. To salivate a patient, under any circumstances, is disreputatable. Nutritious food is allowed now, in nearly all stages of all diseases. Cold water is admissible in all cases, and used freely internally and eternally, in the treatment of fevers. Vesicants are seldom used. Remedies unknown to the profession fifty years ago are now among the most effective, concentrated, and palatable. Aconite, veratrum, gelsemium, and bromides are the antiphlogistics; while strychnine, digitalin, atropia, are among our choice remedies. Of all the old remedies so much used by our fathers, opium, ipecac, iodine, castor oil, and quinine remain. All medicines in the hands of the experienced practitioner, are much more sparingly used, now-a-days. Disease, instead of being an "entity," is now regarded as but a manifestation of conditions; as natural phenomena, resulting from our natural proceses, however painful or destructive. In short, medicine in the more comprehensive sense of the term, has undergone a most remarkable change,—a complete metamorphosis,—the character and significance of which, to the student of today, is almost incomprehensible. Is it not possible, however, that our fathers and we older men in our younger days, had a resonable degree of success in the treatment of disease, with the remedies then in common use?

There are two elements of human nature that sometimes seem to antagonize, and thus embarass us in our endeavors to correctly estimate the relative merits of things past and present. One of the elements, constituting a noble characteristic of mankind, elevating the race, and distinguishing individuals, is veneration for age. It is the habit of most persons to look backward, up the stream of time, for wisdom; and to regard all things present, or modern, as indicative of degeneracy, and weakness. This is the conservative element in our natures, and saves us undoubtedly from many follies.

The other element, equally characteristic, is that of self-esteem,—the mainspring of ambition,—and all self-asserting, forward motion. Such is the innovative element which leads us onward, opens up our perceptions to new views, around which the horizon of our vision is conspicuously widened. How can we reconcile these conflicting influences, except by an appeal to facts and reason? The habit, long indulged, of accounting for such a revolution in the practice of medicine without offense to the memory of our fathers or accusation of ourselves, by assuming a corresponding change in the nature of diseases, or of the structures of the

human body,—is not in accordance with facts, and must necessarily be abandoned.

That there has been change, so to speak, in the general character of diseases, may be known from the facts that disease is a phenomenon, the characteristics of which are determined by the cause that instigates it, and the conditions of organs from which the phenomenon proceeds. The same cause always has, and always will, produce the same disease, other circumstances being similar. The old authors described the various diseases, about as accurately as they are described today; but the causes and treatment were not as well understood as they are in these modern times, where we have more facilities for accurate diagnosis, and newer and more potential agents for the prevention and cure of diseases.

Young physicians are living in a forward time, and are receiving instruction, which puts them so much in advance of those who took the path a generation ago. The writer of this has been in the practice of medicine forty-three years, and I have been a student of the science nearly all my life, as my father was a practitioner from 1825 to 1888; and he always had his heart set on making a doctor out of me. I was the third son among four boys, and the other boys seemed to prefer other pursuits; therefore, while I believe, in the light of the present and there is much in the past to censure, yet there is much in the present I can't approve. We must go back to our fathers' time and know the habits of those they treated, and the diseases of their day, and remember that we are a different generation of people, whose habits and diseases are different; and I am not so certain, but that the man who would go into the field and practice medicine now, with the same remedies we now use, and with the same diseases that existed forty or fifty years ago, would make just about the same failure as the man would who used to reap with the scythe and sickle, if he would take the reaping machine into a field full of stumps.

While, as I said, blood-letting is obsolete, yet I am not so certain that it could not be revived with great advantage. It hasn't been so long, since I saw a purturient woman bled, in the midst of a convulsion, and she never had another.

There are a few men of the present day who better understand pathological conditions than did our fathers. Of course to repeat, there have been wonderful improvements in the means for making diagnosis and great advances in therapeutic measures; but the results of our fathers, with the means they had, were about as successful as the doctors of today. Those old-timers were practical, self-reliant, common-sense men; and they healed the sick as well, if not better, than our present day, ultra-scientific physician. The science runs to extremes or theories, and too much time is expended on bugs, germs, etc., to the neglect of the solid, practical prosecution of the healing art.

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GUAIACOL.

Guaiacol pure, full strength, rubbed lightly, not too hard, over a pain will stop it instantly, good in facial neuralgia, uterine contraction in delivery pain reduced to nothing; in delicate skins mix half with vaseline or castor oil. In toothache a small piece of cotton saturated with guaiacol and pressed tight into the tooth, gives ease in a few minutes.

HICCOUGH.

℞ Argent. Nit. . . . . gr. ii
Aqua . . . . . Teaspoonful vi
Sig.—Teaspoonful and repeat in hour, seldom third dose required.

CHILLS.

Chloroform 20 drops on sugar given by mouth, before or even after the chill begins will abort it.

BEN H. BRODNAX, M. D.

DISCUSSIONS

This Department contains each month discussions of questions concerning the medical profession, case reports, letters, inquiries and replies from our readers, and short articles on matters of interest to the profession. If you have a case you would like some help with, or a question to ask, write us and we will publish it in this Department and you will get the opinions of our medical brethren. When you have an interesting case, write a report of it and sent it in and it will help someone else. We need each other's counsel so let us help each other from our experiences. Letters are desired from physicians on any subject pertaining to our profession.

DID KING HEROD HAVE ORGANIC HEART DISEASE?

In the "Antiquity of the Jews," Flavius Josephus says: "But now, Herod's distemper greatly increased upon him, in a severe manner, and, this by God's judgment upon him for his sins; for a fire glowed in him slowly, which did not appear to the touch outwardly, as it augmented his pains inwardly; for it brought upon him a vehement appetite to eating which he could not avoid to supply with one sort of food, and another. His entrails were also exulcerated (?) and the chief violence of his pain, lay on his colon; as an aqueous and transparent liquor had settled itself about his feet; and in like manner, afflicted him at the bottom of his belly. Nay, farther, his privy member was putrefied, and produced worms; and when he sat upright he had a difficulty of breathing, which was very loathsome, on account of the stench of his breathing, and the quickness of its return; he had also, convulsions in all parts of his body, which increased his strength to an insufferable degree. It was said by those who pretended to divine, and those who were endued with wisdom to foretell such things, that God inflicted this punishment on the King on account of his great impiety; yet was he still in hopes of recovery, though his afflictions seemed greater than he could bear. He also sent for physicians, and did not refuse to follow what they prescribed for his assistance; and went beyond the river Jordan and bathed himself in warm baths that were "Calirhoe," which besides their other general virtues, were also fit to drink. And when the physicians thought fit to have him bathed in a vessel full of oil, it was supposed that he was fast dying, but upon the lamentable cries of his domestics, he revived; and having no longer the least hope of recovering, he gave order that every soldier should be paid fifty drachmae; and he also gave a great deal to their commanders, and to his friends, and came again to Jericho, where he grew so choleric that it brought him to do all things like a madman; and though he were near his death, he contrived the following wicked designs. He commanded that all the principal men of the entire Jewish nation, wheresoever they lived, should be called to him. Accordingly, there were a greater number who came, because the whole nation was called,, and death was the penalty of those who should despise the epistles that were sent to call them. And now the King was in a wild rage against them all the innocent as well as those who had afforded him grounds for accusations; and when they were come, he ordered them all to be shut up in the hippodrome, and sent for his sister, Salome, and her husband, Alexas, and spoke thus to them: "I shall die in a little time, so great are my pains; which death ought to be cheerfully borne; and to be welcomed by all men; but what principally troubles me is this; that I shall die without being lamented, and without such mourning as were usually expected at a king's death." For that he was not unacquainted with the temper of the Jews, that his death would be a thing very desirable, and exceedingly acceptable to them; because during his lifetime they were ready to revolt against him, and abuse the donations he had dedicated to God. He desired that so soon as they saw he had given up the ghost, they shall place

soldiers around the hippodrome, while they do not know he is dead; but they shall give orders to have those who are in executing this order, he would die in custody, shot with their darts; that secure of the fact that there would be mourning at his death. He took care at his death that the whole nation should be put into mourning. He gave order that one out of every family should be slain. Herod attempted suicide, but was restrained by Archelaus. As a bloody monster, Nero was outclassed by Herod.

D. L. Field, M. D.

BIBULOUS DOCTORS.

My observations are somewhat at variance with those of Dr. Field's as regards bibulous doctors. This has been one of the things about the medical practice that I have given special attention to and have invariably found the so-called best people, that is the rich people, and the church people and especially the preachers and leading temperance advocates or a greater majority of them employing the hardest drinking doctors in their town. This is the rule not the exception. The Doctor's statement that the drinkers die sooner or eariler in life is not borne out by facts as his own case proves that out of the twelve he mentions five he says filled drunkard's graves but there were five others who also have died so its an even go there as no more drinkers have died than non-drinkers in his picked dozen. The two first doctors that ever doctored in my father's family when I was a kid are still living, one over 80 and the other one over 90, both hale and hearty and still at work and both leaders in their day and good medical men yet, one in active practice, both wealthy, one of them it is said has never seen a real genuine sober day in sixty years. The other one never drank much but was no prohibitionist by a long shot. Now I will come right down home to our own little city. We have about 40 doctors here. Out of this number some ten of them drink more or less, the remainder, both men and women, are non-drinkers. The ten drinkers do two-thirds of all the business here and the five that are drunk considerable of the time do at least two thirds of this and nine-tenths of the surgery. The drinkers have the autos, the finest homes, the best rigs, manage the hospitals, have the corporation business and most of the general practice, wear the best clothes and have more friends than the sober ones. The oldest doctor in town has not been real sober so they say for 20 years. I have seen the oldest temperance preacher in the city employ a physician to prescribe for his family when the doctor had to stand up in a corner where he could have two walls to steady himself before he could write. Where there were half dozen better doctors in the same building that were real sober men for these he had no use it seemed. No, the moderate drinkers are the men that move the world and do the business, have the friends and live the longest, make the most money.

Dr. M. E. Johnson,
309½ North Broadway, Pittsburg, Kan.

FAVORITE TONICS.

Tonics are often needed in general practice. The after-treatment of most all diseases requires tonics. The late Dr. Craddock of McLond, Okla., used the following tonic very often and he controlled an extensive practice during his lifetime:

℞ Arsenous acid ..... gr. j
Strychnine ..... gr. ss
Quinine ..... gr. 48
Iron reduced ..... gr. vj

M.—ft. in pil. no. 24.
Sig.—One after each meal.

℞ Tinct. nux vomica.
Fowler's solution .....aa ʒiij
Elix. lactated pepsin q. s. ad. ℥iv
Sig.—Dose one teaspoonful three times a day.

The following is a very useful tonic: Glycerin and cod liver oil in combination is a good general tonic. Several years ago there was a proprietary preparation called cod-liver glycerin which was a mixture of cod liver oil and glycerin. It was used both internally and externally. It has been withdrawn from the market.

Dr. J. W. Decker's favorite prescription for anvexia is:

℞ Tinct. iron chloride .....ʒij
Tinct. nux vomica .....ʒiv
Hydrochloric acid c. p. gtt xxx
Elix. lactated pepsin q. s. ad ℥iv
Sig.—Dose one teaspoonful before each meal.

I have used Dr. Decker's formula with good results a general tonic.

The following is a neurotonic alterative:

℞ Syr. acidi hydriodici .....℥ij
(Hostelley)
Siq. potass. arsenit .....ʒij
Tinct. calumbae .....℥j
Tinct. capsicum .....ʒj
Syr. hypophos comp. (Hostelley)
q. s. ad .....℥vj
Sig.—Dose one teaspoonful in water three times a day.

A "sheet anchor" tonic is:

℞ Quinine sulphate .....gr. xxx
Tinct. gentian comp. .....℥ij
Strychnine sulphate .....gr. j
Syr. acid hydriodic .....℥ij
M. Sig.—Dose one teaspoonful in water three times daily.

A god alterative tonic is:

℞ Mercury bichloride .....gr. iij
Liq. ac. arseno .....ʒj
Tinct. iron chorlde
Ac. hydrochloride dil ....aa ʒiv
Syrup q. s. ad. .....℥vj
Sig.—Dose a dessertspoonful in a wine glass of water after each meal.

Here is a good general and stomach tonic:

℞ Strychnine sulph. .....gr. j
Pepsin (scales) .....ʒjss
Tinct. gentian comp.
Tinct. cinchona comp. ....aa ʒj
Syr. ac. hydriodic .....ʒiijss
M. Sig.—Dose one teaspoonful before each meal in water.

The following is often useful:

℞ Tinct. nux vomica .....ʒij
Liq. pot. ars. .....ʒj
Seng. q. s. ad .....℥vj
Sig.—Dose one teaspoonful after each meal.

A good general tonic and one that will also promote the appetite and aid digestion is:

℞ Tinct. nux vomica .....ʒiv
Seng. .....℥ij
Chionia .....ʒjss
M. Sig.—Dose one teaspoonful before each meal.

To promote the and prevent fermentation:

℞ Ac. hydrochloric dil. .....℥i
Seng. ..... ℥iij
Chionia ..... ℥iv
M. Sig.—Dose one teaspoonful after each meal.

A good tonic in catarrh of the stomach and bowels. gall stones and constipation is:

℞ Fld. ext. hydrastis.
Fld. ext. cascara .....aa ʒiv
Seng. .....℥iij
Chionia .....℥iv
M. Sig.—Dose one or two teaspoonfuls after meals.

Banana flour is a good general tonic especially during diarrhoea.

Cotton seed oil is a valuable general tonic especially during respiratory diseases.

A few years ago a prescription calling for parched wheat bran (coarse) containing a little iron and ammonia citrate was sold for $2.00. It was guaranteed to cure everything almost.

Pinapple juice is a valuable adjunct to many tonics to aid digestion. A good general tonic and a valuable compound for acute indigestion is:

℞ Ac. hydrochloric dil. .....ʒj
Tinct. nux vomica .....ʒij
Seng. ..... ℥iij ss
Chiona q. s. ad. .....℥viij

Sig.—Dose one teaspoonful three times a day.

Tonic for general use:

℞ Liq. pot. ars. .....ʒijss
Tinct. nux vomica .....ʒiv
Seng.
Chionia a. a. q. s. ad .....℥iv

Sig.—Dose one teasoonful three times a day before meals.

Dr. J. L. Fennel recommends the following as the best blood tonic he knows and claims that he has had excellent results with it:

℞ Mercury bichloride .....gr. iij
Potassium iodide .....ʒj
Syr. sarsp. comp.
Tinct. gentian comp. ....aa ℥viij
Aqua q. s. ad. .....℥viij

M. Sig.—Dose one teaspoonful one hour after each meal.

A physician told me that echinacea and potassium chlorate would cure puerperal fever almost every time. He did not give the doses. I find the following in Woodward's Intra Uterine Medication:

℞ Potassium chlorate .....ʒj
Fld. ext. echinacea .....℥v
Fld. ext. nux vomica.....gtt xv
Simple syrup .....℥jss
Aqua q. s. ad. .....℥iv

Sig.—Dose one teaspoonful every three hours.

J. A. Burnett, M. D.

THE ILLS OF BOBBIE BURNS.

Edinburgh, Dec. 12, 1789.

"I am here under the care of surgeon, with a bruised limb extended on a cushion; and the tints of my mind vying with the livid horror of a mid-night thunder-storm.

A drunken coachman was the cause of the first, and incomparably the lightest evil; misfortune, bodily constitution, hell, and myself have formed a "quadruple alliance," to guarantee the other. I got my fall on Saturday, and am getting slowly better. I have taken tooth and nail to the bible, and am got through the five books of Moses, and halfway through Joshua. It is really a glorious book."

Dec. 19, 1789.

"The atmosphere of my soul is greatly clearer than when I wrote you before. For the first time I crossed the room yesterday, on crutches. It would do you good to see my Bardship, not on my poetic; but on my oaken stilts; throwing my best leg with an air and with as much hilarity in my gait and countenance as a May frog leaping across the newly harrowed ridge, enjoying the fragrance of the refreshed earth after the long expected shower."

"Brow Sea-Bathing Quarters,
7th July, 1796.

"Alas! my friend, I fear the voice of the Bard will soon be heard among you no more. For these eight or ten months I have been ailing, sometimes bedfast, and sometimes not; but these last three months I have been tortured with an excruciating rheumatism, which has reduced me to nearly the last stage. You actually would not know me if you saw me. Pale, emaciated, and so feeble as occasionally to need help from my chair; my spirits fled! fled! but I can say no more upon the subject—only the medical folks tell me, that my last and only chance is bathing, and country quarters

and riding. The deuce of the matter is this, when an exciseman is off duty, his salary is reduced to £35 from £50. What way, in the name of thrift, shall I maintain myself and keep a horse in country quarters—with a wife and five children at home—on £35? I mention this, because I had intended to beg your interest, and that of all the friends you can muster to move our commissions of excise to grant me the full salary—I dare say you know them all personally. If they do not grant it me I must lay my account with an exit truly "en poete.,; if I die I must perish with hunger."

Jan. 31, 1796.

"I have lately drunk deep of the cup of affliction. The autumn robbed me of my daughter, and darling child, and that at a distance too, and so rapidly as to put it out of my power to pay the last duties to her. I had scarcely begun to recover from that shock when I became myself the victim of most severe rheumatic fever; and long the die spun doubtful; until many weeks of a sick-bed, it seems to have turned up life, and I am beginning to crawl around my room, and once, indeed, have been before my own door in the street."

Again: "For these two months I have not been able to lift a pen. My constiution and frame were "aborigine" blasted with a deep incurable taint of hypobondria, which poisons my existence."

DEATH AND DOCTOR HORNBROOK.

"Ay, ay! quo' he, an' shook his head,
"It's e'en a lang, lang time indeed
Sin' I was to the butching bred,
An' choke the breath;
Folks maun do something for their bread,
An' sae maun Death."
Six thousand years are near-hand fled,
Sin' I was to the butching bred;
An' mony a scheme in vain's been laid,
To stap or scaur me;
Till ane Hornbrook's ta'en up the trade,
An' faith, he'll waur me.
Ye ken Jock Hornbrook i the Clachan,
Deil mak his kings-hood in a spleuchan,
He's grown sae weel acquaint wi' Buchan
An' ither chaps;
The weans hand out their fingers laughin
An' pouk my hips.
Sae, here's a scythe, and there's a dart,
They hae pierced many a gallant heart;
But Doctor Hornbrook, wi his art,
An' cursed skill,
Has made them baith, no worth a groat,
Feint heat they'll kill.
'Twas but yestreen, nae farther gaen,
I threw a noble throw at ane,
Wi' less, I'm sure I've hundreds slain
But did-ma-care,
It just played diel on the bane,
But did nae mair.
Hornbrook was near, wi' ready art,
And had sae fortified the part,
That when I looked to my dart,
It was sae blunt;
Fient haet o't wad hae pierced the heart
Of a kail-runt.
I drew my scythe in sic a fury,
I nearhand cowpit wi' my hurry;
But yet the bauld apothecary,
Withstood the shock;
I might as weel hae tried a quarry,
O' bard whin rock.
But hark! I'll tell ye of a plot,
Tho' dinna ye be speaking o't;
I'll nail the self-conceited sot,
As dead's a herrin;
Nist time we meet, I'll wad a groat,
He gets his fairin!

D. L. Field, M. D.

Jeffersonville, Ind.

POLY OR SIMPLE PHARMACY.

In days past, and even at this late day, it has been the habit of the internist to employ formulas containing numerous constituent parts. But little attention has been given to the specific action of drugs, as applied to specific conditions. Many of the longer formulas have been employed with the hopes and idea that at least one of the component drugs might be active in the relief of the condition under observation. We saw, in the earlier centuries, agents carrying as high as half a hundred drugs, or other remedies employed and even today there are some in use carrying not les than half that number, and in spite of the fact that much is said and written regarding simplicity in the application of internal medicine. Warburg's antiperiodic tincture is an example of those employed at the present. This is used in spite of the fact that it carries certain articles which are antagonistic, one to the other, physiologically.

There was some excuse allowable to our forefathers in their use of these "shot-gun" prscriptions. They were not well versed either in the etiology or pathology of disease and were given to relieving the apparent symptoms, rather than removing the cause. On the other hand there is no apparent excuse, at the present time, for the employment of any considerable group of agents within one formula. To-day we are aware of the causative agent in nearly every disease, and have an idea of the cause in those which have not already been determined. We are aware, in the majority of instances, of the pathologic changes and conditions, brought about by the exciting cause, and we know also what agent or agents will bring about the normal, when applied to the pathologic conditions existing. Consequently, it is apparent that simplicity should be the rule and not the exception in the treatment of all diseases, be they specific or otherwise.

By employing simplicity in the treatment of the sick there is no liability that there will be antagonism, in so far as the drugs are concerned. If quinine is specific in overcoming the etiologic factor in malaria, why add other agents in the treatment? Aconitine has been effective in the majority of febrile conditions, and rarely is it necessary to employ any febrifuge in connection therewith, unless as it sometimes happens, there is marked toxemia due to absorption or retention of toxic materials incident to the inflammatory process, in which latter cases veratrine is given in conjunction with the aconitine and acts as a synergist thereto. Strychnine also acts synergistically, in that it gives more tone to the tissues generally and sustains the action of the febrifugue. In some instances digitalin also acts synergistically to acontine through its selective effect upon the heart, in that it sustains the action of that organ and incidentally improves the condition of the circulation.

We see many cough mixtures, many of old derivation and some but lately offered, all of which are in the polypharmacy class. In the majority of instances these products all contain expectorants without consideration as to their action. In numerous instances we find sedatives, as well as stimulative expectorants combined in the same mixtures, and not infrequently do they defeat the aims of the doctor. In syrup of white pine compound we find items which are diametrically opposed, one to the other. One sedates the cough, while another increases that symptom. One increases the flow of exudate, while another decreases it. And all of this is combined within one mixture. How much better would it be if the exact pathologic condition were taken into consideration. A dry and irritating cough calls for an agent, as emetine.

which will increase the flow of exudates, while a condition in which there is an excess of exudates and with but little attempt to cough undoubtedly indicates the use of sanguinarine. In many in-instances it has been found that the use of either of these meet all of the indications. if properly employed and with due consideration of the true conditions, as they exist.

There is also a matter of simplicity as regards the drugs themselves. Many of the patent drugs, of plant nature, are complex in the extreme and all carry, not infrequently, certain contents which are radically opposed, one to the other. If the parent drug is employed in its entirety there is no absolute guarantee that any two applications of different lots of a like drug will bring about like results, as in the majority of instances there is a marked difference in the percentages of the component parts which are therapeutically or physiologically active. We find drugs like opium, carrying not less than twenty active principles. all of different physiologic effect, are unreliable when employed in their original states, due to the variance in contents. Others, as gelsemium, which carries two therapeutically active principles, does not give reliable results. All of the plant drugs have their values, but not infrequently are found to be more valuable when reduced to their simplest forms and their therapeutic principles isolated, and in such condition as to allow of their administration without danger of antagonism.

Instead of employing extensive mixtures with the hopes that one or more of the component parts thereof might be effective. we now study our cases and apply such remedies as are indicated, with the idea of bringing about a correction of certain specific conditions. We employ the salicylates to overcome the specific cause of rheumatism and add colchicine and the salines thereto in that elimination may be fostered. Such a line of treatment is absolutely rational and in no way empiric, other than in the possible fact that we do not know absolutely how the salicylates bring about their effect. When we find the urine hyperacid or that it carries indican, we know that acidemia, or autoxemia exists and we meet the conditions as they appear, with remedies which are known to be active in bringing about relief. Such knowledge takes medicine out of the realms of guess-work and makes it almost, if not completely, an absolute science. Knowing absolutely what the pathologic conditions is that is under observation, and the remedies which will bring about relief, we find that the matter of drug application become more simple day by day.

Geo. L. Servoss, M. D.

Fallen, Nev.

SHOULD THE CLITORIS RECEIVE MORE ATTENTION FROM THE GENERAL PRACTITIONER?

It is now generally admitted by all thinking physicians that there is a field for specialism in most all branches of medicine. The general practitioner cannot devote the time to the study of all branches of medicine as a specialist can devote to one branch, neither can one man have the experience in all branches that he can have in but one or a few branches. In other words specialism is perfectly legitimate in certain branches and should be encouraged.

The gynecologist of broad experience and training knows much about the clitoris but as a rule the general practitioners know but very little about it and do not recognize many conditions they should that arise from it. There are often adhesions of the clitoris that cause various reflex conditions and a physician not informed on the clitoris would never think of looking there for

the seat of the condition. It is stated by good authority that a bound down clitoris can cause all the reflex symptoms in the female that a tight prepuce of the penis can cause in the male, and that if the adhesions are broken up or female circumcision performed it relieves these conditions, same as similar operations relieve in the male.

Circumcision of the male has been known to physicians and the public for ages and its value is well established but I have seen physicians that had not even heard of female circumcision and the public is almost absolutely ignorant of it. I will quote as follows from "Surgery" by Dr. J. A. Wyeth, 1908, page 605:

"Adhesions of the clitoris are very frequently seen and should be broken up, since the retained secretion tends to decomposition and always produces a very annoying irritation. This may be accomplished by putting the parts on the stretch between the thumb and finger and using a dull pointed instrument—such as a grooved director—for tearing through the adhesions."

Notice Dr. Wyeth says these adhesions are frequently seen and says they should be broken up. His method of breaking them up will answer in place of female circumcision in many cases.

I will quote as follows from "A Text Book of Obstetrics" by Dr. B. C. Hirst, 1906, 5th Ed.:

"The clitoris has the structure and anatomical feaures of the penis, but is miniature, and modified by the cleft below, the absence of the urethra, and the separation of the spongy bodies in the bulbs of the vestibule. The cavernous bodies of the clitoris is surrounded at its base by sebaceous follicles secreting a smegma which may be confined by perputial adhesions, and is likely to cause irritation by its decomposition."

There is a valuable article on clitoritis in the second volume of Sajous Annual and Analytical Cyclopedia of Practical Medicine, 1899. The writer gives the following definition to clitoritis:

"The question as to the frequency of this condition is one which involves great difference of opinion, and depends not a little upon the definition which one give it. If considered as an inflammation which involves the structures, as a whole, of which the organ is composed, it is, indeed, of rare occurrence; but if we include that adventitions form of inflammation, often of slight intensity, indicated by fibrous structures which are attached to and bind down its terminal portion, it is of great frequency.

If all female children were carefully examined to determine its presence or absence it would doubtless be recognized much more freqeuntly than it is. It would probably be found as often as the analogous condition which affects the penis of male children."

According to the above writer one form of clitoritis is frequent and if female children were examined it will still be found more freqeuntly. This writer further states:

"During childhood its conspicuous position invites the injuries to which childhood is usually susceptible, and it is also in danger from uncleanliness from parasites, and from masturbation. After the external gentals have acquired complete development and the mature condition which follows puberty has placed the organ in a less exposed situation there is still danger from traumatism, though not to a great degree; from uncleanliness, from masturbation from violence in coitus, and from the poisonous influence of venereal diseases. It would seem that susceptibility to injury increased with the size of the organ, a large organ being an anomaly and requiring constant care and precaution. This fact emphasizes the necessity that the family physician be acquainted with the peculiarities of his patients in order to safeguard them from evils which may be avoided.

"The clitoris may be the seat of cystic disease from haemorrhage or other

the development of the organ, produces causes (Peckham), of syphilitic new growth (Kelty), of carcinoma, and less frequently of sarcoma (Robb) of hypertrophy, in addition to various congenital deformities and defects. Its appearance in spurious hermaphrodism hypertrophy and congenital deformity. These statements are made incidentally, since a true inflammation may be associated with either of these conditions, a true clitoris being then present.

"Inflammatory diseases of the clitoris may, therefore, be prenatal or postnatal in its origin, congenital or acquired. In the great majority of cases it is prenatal; that is, it originates during foetal life. Why such a condition should arise so frequently during this period is not known; but the fact remains that many female children come into this world with the glans clitorides surrounded by more or fewer bands of adhesions, binding it down, interfering with its circulation and development, and furnishing causes for more or less subseqeunt irritation and disturbance.

"Of the post natal or acquired form, of the disease, while there are occasional instances in which it it is caused by extension of dermatitis affecting the contagious tissue, in the greater number of cases it will be due to venereal infection or to traumatism.

"With reference to the etiology, therefore, the disease may be classed as (1) congenital, (2) venereal and (3) traumatic.

"Of course of the congenital variety we are ignorant, as has already been remarked.

"The bands and strands of fibrous tissue of greater or less density and firmness, which are visible consequence, attach its glans to the prepuce, or hood, which is formed by the coalescence of the nymphae, and to the surface which lie immediately around it. The contraction of this tissue according to its abundance and firmness, interferes with by unclenaly habits, by paraisites, and irritation, and probably leads, in not a few instances, to the habit of masturbation. It is conceivable, as Baker Brown insisted, that certain forms of nervous disease might result in consequence of such conditions, but the number of cases in which such relationship has been carefully observed must be quite small. In the great majority of cases, it is believed that the resulting disturbance has been too slight to require attention and treatment from the gynecologist.

"Treatment—There is little to be said concerning the treatment of clitoritis of whatever variety.

"Rest in bed is essential in local cleanliness, equally so. In the congenital variety the adhesions must be removed, and this can usually be done thumb a forefinger of one hand while the forefinger of the other is rubbed over the glans with sufficient firmness to remove all obstruction. The bruised surface may then be dusted with iodoform, aristol, or nosophen, and this process repeated daily as long as the surface remains broken. For the venereal variety a 10 or 20 per cent solution of silver nitrate should be applied daily upon absorbent cotton until pain and swelling have subsided and the ulcerated surface healed. For the traumatic variety only soothing lotions will be required. Lead and opium wash, frequently applied upon absorbent cotton will serve the purpose sufficiently well."

The above writer plainly states that adhesions must be broken up and his method is somewhat similar to Dr. Wyeth. The best information on how to circumcise or remove hood from the clitoris that I have found is in Ashton's Practice of Gynecology. It gives full illustrations of each step of the operation which is worth the price of the book to any physician interested in this operation which is a very simple one and often needed.

J. A. Burnett, M. D

THE DOCTOR'S LIBRARY

This Department contains each month reviews of the latest and best books of interest to doctors. Items of literary news will furnish information on progress in the world of literature.

A Working Manual of High Frequency Currents. By Noble M. Eberhart, A. M., M. D., Prof. & Head Dept. of Electrotherapy, Chicago College of Medicine & Surgery; Prof. Radiotherapy. High Freqeuncy & Vibration, Illinois School of Electro-therapy. Author of "Practical X-ray Therapy," "Vibratory Technique," etc. Cloth 12 mo. 303 Pages. Illustrated. Price $2.00. New Medicine Pub. Co., 7 W. Madison Street, Chicago.

This volume is the result of an extended experience as the author has used high freqeuncy currents in his practice for ten years and has taught the subject eight years. The book is a practical working manual for the busy physician who wishes to learn how and when to use high freqeuncy currents. The author first clearly explains the nature of high frequency currents and how it should be used on different parts of the body. Then high frequency therapy is given with the diseases arranged alphabetically and the technic to be employed. Any physician who will read this book and buy a high frequency apparatus will find that he has entered a new world of efficient work. He will find that he can relieve and cure many diseases and add much to his income.

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The Human Atmosphede. Or The Aura Made Visible by the Aid of Chemical Screens. By Walter J. Kilmer, B. A., M. B., etc., Late Electrician at St. Thomas's Hospital, London. Illustrated. Pages 329. Cloth, Price with Screens, $9.00. The Rebman Co., 1123 Broadway, New York City.

This is a work entirely different from anything heretofore offered to the medical profession. The author states that every individual is surrounded by a haze intimately connected with the body, whether asleep or awake, whether hot or cold, which although invisible under ordinary circumstances can be seen when conditions are favorable. He considers that the perception of this aura by the sole employment of material means, makes the phenomenon a physical question. The author is neither a clairvoyant nor occultist and discusses the subject from a purely physical standpoint. This aura differs at different ages, is different in different individuals and is different in various disease conditions. The author claims that an understanding of this phenomenon and its detection is a great aid in diagnosis. The doctor who can understand the auras, can make quick and accurate diagnosis in various diseases according to this work. The author has devised colored screens which enable the observer to detect the aura. A set of these screens goes with the book. The volume is illustrated with full page drawings showing the different aura in health and disease. The work is very interesting but time will tell its practical value.

♣ ♣ ♣

The October McClure's opens with Owen Johnson's new novel of American college life, "Stover at Yale." Dink Stover's' experiences as an undergraduate promise to be the most interesting of any in which he has as yet figured. The first chapter sets him amid a whirl of perplexing and exciting problems. The combative pluck and energy with which Dink Stover attacks these problems awakens the reader's sympathy from the start.

"The Honest Man" is one of Percival Gibbons best Miss Gregory stories.

THE WISCONSIN MEDICAL RECORDER

J. P. THORNE, M. D.
EDITOR
Janesville, Wis.

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VOL. 14 SEPTEMBER, 1911 No. 9

AN IMPORTANT ANNOUNCEMENT.

Commencing with the October number an important change will be made in The Recorder. Fourteen years ago The Recorder was launched upon the turbulent sea of medical journalism. The intention at first was that The Recorder should be a local medical journal. The magazine soon outgrew its local character and field and acquired a national reputation and at present it goes to every state in the union and to many foreign parts.

As The Recorder has grown, the duties of the editor have increased. As the editor is engaged in the practice of ophthalmology and oto-laryngology he has been unable to give the required amount of attention to The Recorder for some time. As The Recorder has grown so also has the editor's practice increased until he has been obliged to have help in conducting the magazine.

Hereafter Dr. J. V. Stevens will be associated with the writer in the editorial work of the magazine. Dr. Stevens has had a large and varied experience as a practitioner, medical college professor and until recently as secretary of the Wisconsin State Board of Medical Examiners. The Recorder will profit by his experience and his contributions will be a feature of the magazine. Many improvements have been planned which will add much to the interest and value of the periodical. The Recorder will be so good that you will not wish to miss a copy next year.

The business departemnt of the magazine will be separated from the editorial. The advertising and subscriptions will be in charge of a competent business manager who will give careful attention to that part. This division of labor will enable us to produce a better periodical and to give prompt attention to all matters pertaining to the publication.

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The Recorder will be so much improved in the near future that it will be worth more than a dollar a year and we expect it to be so attractive that it will not be necessary to offer premiums as an inducement to subscribe. For a limted time we shall offer the thousand prescription labels as a premium, and those wishing the labels will do well to order now. We have the facilities for making the labels quickly.

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The October Recorder will be issued in the latter part of October and succeeding numbers will be issued earlier in the month.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XIV OCTOBER, 1911 No. 10

TUBERCLE BACILLUS

DRS. G. G. BURDICK, and THEODORE C. F. ABEL, Chicago

Since 1882, when Koch first announced the discovery of this bacillus, innumerable investigations have been carried on with regards to itself and its products, with the net result that today we probably know as little about their true nature as Koch did in 1882. True, not one of the more important pathogenic organisms is more easily demonstrated and recognized. So far as morphology goes, there is practically nothing more to learn. But the great obstacles in the way of getting pure cultures make the study of its biology extremely difficult.

Much has been written about the resistance of this bacillus to detrimental agencies. As a matter of fact its resisting power is probably no greater than that of other non-spore-bearing bacilli. That some tubercle bacilli have resisted drying at ordinary temperatures for months is a demonstrated fact; these instances are, however, exceptional, since most of them die very soon after drying. On cultures, as a rule, they do not live over three months. In putrefying sputum they may survive several weeks. Cold does not seem to affect them at all. They are killed by heat much more quickly when in a liquid medium, such as milk, being killed by 60 degrees C. in twenty minutes, which fact is made use of in pasteurizing milk. One-half minute's boiling is sufficient to destroy them. On the other hand, dried tubercle bacilli may be heated to 100 degrees C. for forty-five minutes before they succumb.

It is interesting to note the various degrees of resistance this organism shows toward different chemical disinfectants. The fact must be borne in mind that while contained in sputum they are usually protected by mucus or cell protoplasm, which offers resistance to the penetration of the germicide. The addition of 5% carbolic acid to sputum will destroy them in less than six hours, equal quantities being used. Bichloride is less efficient as it combines with the mucus, and thereby forms a protecting envelope. Iodoform will kill cultures when 5% is added. Sulphur dioxide kills the bacilli in eight hours, when they are moist and fully exposed; four pounds of sulphur being used to each thousand cubic feet of air space. Formaldehyde gas acts more rapidly than this but is not any more efficient; 10 ounces of formalin being employed for each 1000 cubic feet. (Park and Williams).

Direct sunlight kills the bacillus in from a few minutes to several hours, depending on the thickness of the surrounding layer and the season of the year. Diffuse daylight in five to ten days.

It is seen from this that sputum expectorated upon a sidewalk or street may be destroyed by sunlight before it becomes dry enough to form dust; on the other hand, if protected from the

sun in a shady spot it becomes a menace as soon as it is dry enough to be taken up and carried about by the air. As a matter of fact, dried sputum, in rooms where the sunlight was not abundant, has been found to contain virulent germs after ten months, and is probably dangerous for at least a year.

When we consider that one tuberculous individual is capable of expectorating 5,000,000,000 virulent bacilli in 24 hours and that only a few of these people make any effort to protect others, it is a wonder that more infection by inhalation does not occur.

The use of the collapsible paper cups for expectorating, which are cheap and can be burned after using, should be urged much more strongly than is now done.

As in other infections, many attempts have been made to produce active or passive immunity against tuberculosis, but the results have been, if not negative, at least very unsatisfactory. Probably as Koch early pointed out, the difficulty is due to the fact that the bacilli never give off enough toxin in the body to stimulate the formation of anti-bodies. This may be due to the fatty or waxy envelope which has been shown to cover the bacillus.

The various tuberculins now on the market, both for diagnostic and therapeutic purposes, may all be classed as vaccines, i. e., they are made from the bodies of dead bacilli, or from their products in cultures while living, or both. The old original tuberculin of Koch (T. O.), which is now comparatively little used, can from the way it is prepared only contain such soluble toxins as the bacillus may give out during its life, if the secretions are really toxins, which is doubtful.

In the new tuberculin (T. R.), which Koch produced in 1897, there is present none of this soluble toxin, the preparation consisting of the dried and powdered bacilli, which have been washed and suspended in salt solution. Some endotoxin may be present, although probably most of it is lost.

However, the introduction of this cell substance into the body may lead to the formation of bacteriolysins, so that while with the old tuberculin we can only produce an immunity to the soluble toxin, in the new product the immunity, if any, would be directed against the bacillus itself.

In the Bacillen Emulsion (B. E.) we have not only dead bacilli, but also more or less endotoxin, and probably some soluble toxin. Its freedom from living bacilli, however, is at the best doubtful, and its use dangerous, although better results have been obtained with it than with the other Koch preparations.

Another tuberculin (Deny's B. F.) is similar to Koch's T. O., except that no heat is used in its preparation.

The suggestion has been made to give a course of B. F., which will confer a certain amount of antitoxic immunity, and follow this with a course of B. E. to make the immunity bactericidal as well as antitoxic.

It is essential to begin with very small doses, say .0001 mg. of B. F. or B. E., or .001 mg. of T. R. Eight solutions are used by Denys, the weakest containing .001 mg. to the cubic centimeter, the next .01 mg. and so on, each solution being ten times stronger than the preceding, the last being the pure B. F. One-tenth c. c. of the No. 1 solution is injected, and the dosage increased by one-tenth of a c. c. until we are using one c. c. of No. 1. We then begin with one-tenth c. c. of the No. 2 solution and follow out the same plan as before; then with No. 3, and so on.

The intervals between injections should be three or four days, say two injections a week; as the higher doses are reached the intervals may be five or six days, while the last three or four doses should be given a week or ten days apart.

If no complications ensue the entire treatment will take about six months, but it is often necessary to suspend injection and wait, when intolerance is manifested.

For diagnostic purposes the tuberculins have been more useful, and they have been of inestimable value in veterinary practice.

The various methods of applying the tuberculin test on the human subject are sufficiently well known, those most used at present being the Von Pirquet and Moro cutaneous reactions; and the ophthalmic test.

The Von Pirquet test is similar in technique to vaccination, a small abrasion being made through a drop of tuberculin previously placed on the skin, or this may afterwards be rubbed into the scratch. A papule forms within 12 or 24 hours. It is usual to make a second abrasion near the first, without however, applying tuberculin, as a control measure.

In the Moro test tuberculin is made into an ointment with lanolin. This is thoroughly rubbed into the skin (arm or abdomen). A crop of papules develops in 12 or 24 hours in positive cases.

The Ophthalmic-tuberculin test or Calmette reaction employs two solutions of different strengths both of T. O. A drop is carefully instilled into the eye, beginning with the weak solution, and if no reaction be obtained, using the strong, but not in the same eye. The reaction consists of a somewhat characteristic conjunctivitis, coming on in 12, 24, or 48 hours, and often continuing for a week. Rapid destruction of the eye has taken place in numerous instances. The procedure is dangerous.

The various antituberculous sera produced by Marmorek and Maragliano are probably inert, in spite of the high standing of the originators. Until the secretion of a soluble toxin by the tubercle bacillus be conclusively proven, any attempts to produce antitoxic sera will be more or less uncertain in their results. Results so far seem to prove this, as they have not been satisfactory.

It will be evident from the foregoing that there is a large field for investigation in regards to the products of this organism. Up to the present time the most satisfactory method of obtaining cultures has been to inoculate a guinea pig with the sputum or other infected material, and after ten days or two weeks making cultures from a lymph-node, in which the bacilli are usually present in almost pure culture. Cultures made directly from the original sputum are usually failures because many other bacteria are present in it, and being more rapid of growth than the tubercle bacillus, crowd it out. After cultures have once been secured, however, transplantations on glycerin, serum or egg media are comparatively easy to grow, as the bacillus soon accustoms itself to artificial media, but it suffers at the same time a corresponding loss of virulence or pathogenic power.

We have made a number of experiments lately, which are not yet completed, by adding various disinfectants to the sputum, with the object of destroying the contaminating organisms without killing the tubercle bacillus. If this can be accomplished, so that cultures may be made from the original material, much may still be learned as to the true nature of the products of fresh, virulent bacilli. Until then, the present unsatisfactory knowledge will have to suffice.

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Any epidemics in your vicinity lately? Please tell us about them and whether a quarantine is strictly maintained and your observation concerning it's practical value and the attitude of the public concerning the matter. Also whether the law is fully complied with, by establishing a quarantine in Measles and Whooping Cough and respecting the regulations of cases of Tuberculosis.

THE RIGHT REMEDY

By GEO. L. SERVOSS, M. D.
Fallon, Nevada

In the treatment of diseases we find many indications of like nature peculiar to many different maladies, and it is the indications we meet and not the disease itself. Because of this we must employ the right remedy at all times.

One of the more prominent subjective symptoms encountered is pain. This symptom may be due to one of many things and the cause should be given first attention, as not infrequently we will find that its removal will bring about relief. In the relief of pain however, we must bear in mind that, unless we employ the right remedy, there is liable to be a recurrence. This is particularly true in abdominal pains, more especially those due to either indigestion or to organic disease. If we do not remove the cause and correct it and only give such remedies as will temporarily obtund the sensations there is bound to be a recurrence, and frequently augmented. There are instances, however, in which analgesics will completely overcome such pains. If there is pronounced spasm of the bowel, without organic disease, or if the pain is of neuralgic origin, the antispasmodic will act to correct and will do no subsequent harm. In the choice of antispasmodics in such cases it should be borne in mind that some serve to cause inactivity of the bowel and in consequence are liable to be followed by a worse condition than the one encountered primarily. Consequently we should shy clear of opium or morphine in overcoming abdominal pains as they are constipating in their action. Hyoscyamine, either alone or combined with strychnine and glonoin, serves admirably as an antispasmodic in such instances. It relaxes the abdominal contents and has a laxative, rather than a constipating effect. If the pain is of spinal origin we find that cicutine is the right drug to use as an antispasmodic. Because of the fact that it is non-constipating, hyoscyamine is the right drug to employ in all irritations of the intestines associated with pain, in that it allows free passage of materials which should be excreted as waste, and there is little, if any, liability to recurrence of the irritation, due to the retention of toxic materials within the bowel. Hyoscyamine does not interfere with the effect of laxative or cathartics and consequently does not interfere with the toilet of the alimentary canal. If pain of the abdominal viscera is associated with local congestion we find that atropine is very effective in that it forces the blood to the surfaces and by so doing gives relief by removing the excess of blood pressure from the affected part.

Fevers are invariably met by the use of aconitine regardless of the disease under consideration. If asthenic and with weak heart the addition of strychnine and digitalin makes this the right remedy in the vast majority of cases, if not in all. In sthenic cases, either with or without delirium, veratrine substituted for strychnine and given in conjunction with the aconitine and digitalin, proves to be the right remedy. Especially is this true in delirium due to the retention of toxic materials and associated high blood pressure. The veratrine serves to dilate the capillaries and in this way gives us the same effect as does bleeding, in that it brings a greater amount of blood to the excretory organs, thus stimulating an increased excretion of waste. With these few remedies there is hardly a case of high temperature that cannot be met and properly combatted. These are the right remedies under such conditions.

Headache is another symptom which not infrequently is the most puzzling encountered by the doctor. I have seen pains of this sort endure, day in and day out, despite the most careful medication. The ordinary headache is un-

doubtedly due to improper excretion of waste with subsequent general toxemia, this symptom being only one of many. In all cases of headache the right remedy is undoubtedly one which will thoroughly and quickly clean out the alimentary canal, such cleaning out to be followed by such agents as will keep the canal, and particularly the bowel, clean subsequently. I have frequently been able to relieve patients suffering from headache with a single dose of a rapidly acting saline, preferably one of repurified magnesium sulphate in effervescent form. Not only does this act as a rapid evacuent, but through the effect of the carbon dioxide serves to "settle the stomach." Following this clean out, the sulphocarbolates are given for a few days and I have seen chronic headaches, due to toxin absorption permanently relieved. Headache is invariably a secondary condition and indicates a cause to be removed. Reflex headaches of women, especially during the menstrual periods are relieved by treating the cause and positively ignoring the symptom in itself. The opiates are never indicated in headaches and are absolutely the wrong remedies to employ. Calomel is another right remedy frequently, in headaches, and it should be employed to effect in such cases. The toxemia is frequently of such severity as not to submit to the simple action of the salines and in such cases calomel and possibly more drastic evacuents are indicated prior to the use of magnesium sulphate. In the headaches of malaria we find that quinine frequently brings about relief and here this is the right remedy. It may bring results when given alone or may require association with evacuents. In our irrigated countries of the west, where malaria is frequently present, we find that a combination of quinine 4 grs. jalap 2 grs., and capsicum 1 gr., given on retiring, will completely relieve the headache due to this cause. I have employed this every third night for from two to five doses and completely overcome a tendency to malaria, or malarial headache.

In muscular pains we find that macrotin, given until there is pain in the head, is one of the right remedies. This may or may not be combined with the salicylates. When such pains are due to faulty elimination, we find that the addition of colchinine to the treatment brings about rapid and satisfactory results. Colchinine favors elimination both by the liver and kidneys. Another right remedy in such cases I have found to be a local application of a saturated solution of sodium salicylate, or if not at hand a saturated solution of magnesium sulphate. The salicylate is preferable, but both will be found to give marked relief. These are both right remedies for application to the swollen joints of articular rheumatism, but should be employed in conjunction with aspirin and colchicine internally and in addition such laxatives and intestinal antiseptics as will clear the bowel and keep it subsequently clean.

It is not the province of this paper to go into details regarding all of the proper remedies employed in the myriad of different diseases coming under the observation of the doctor, but rather to call your attention to the fact that the cause of the condition should be considered in every instance and that only the right remedies employed, based upon the indications present. It is not proper to treat all painful conditions identically the same. If of cerebral origin the treatment is not identical with those of spinal origin, and again the pain due to local congestion does not call for the same treatment as does that of local irritation. The fever due to the action of the simple etiologic factor of the disease under observation calls for another antipyretic than does that due to the additional presence of toxins following faulty elimination. Consequently it is apparent that we are

unable to confine ourselves to an abbreviated list of a few drugs and to place all dependence in them. The user of but few drugs is invariably found to be nihilistic in his ideas of the efficacy of therapeutic agents, simply because of the fact that he fails to meet all indications properly. He may meet all painful conditions with morphine, regardless of indications. He may endeavor to relieve a headache with one of the coal tars, in face of the fact that he already has a depressed heart, and that the discomfort may be due directly to such cause. The man who studies a larger list of drugs and knows their indications, invariably has greater faith in such agents and obtains better results therefrom. It is the indication of the moment to be met and combatted, and not the disease as a whole, and the man who knows how to recognize such indications invariably knows the right remedy to apply. There is a right remedy for every indication, and as we devote more time to the study of indications we discover more remedies with which to meet them and in this way become better doctors.

DREAMS AND DREAMERS

W. STUART LEECH, M. D.
Roseau, Minn.

Individuals, tribes, kingdoms, and nations from time immemorial have often had their affairs altered or directed by the dreams of dreamers. Consciously and unconsciously they shape the tide of many human events. 'Tis sad to think that at this enlightened age we have not the simplest elementary treatise on the subject.

That dreams may be interpreted reasonably it requires a person versed in psychological learning of a reflective mood, one who can think and reason in the abstract, a good reader of human beings, and one who can sympathize with every phase of individuality. He must have unlimited patience and self-restraint. At the present writing I know of no real wise dream interpreter. This class of sages or wisemen belong to a past civilization. Mediaevalism, war, and the shifting of the nations more than two thousand years ago caused the art to be lost. That it will be resuscitated and worked out to a scientific principle I have not the least doubt. Meddling amateurs and fakirs will keep the art in disrepute and act as stumbling blocks to its progress for generations yet to come.

Reflective meditation air castle building, and what is known as wide-awake day dreaming we are not considering. Hypnotic, mesmeric, telepathic, or the somnambulistic are the ones before us. Let the reader bear in mind that hypnotic is where the patients act through audible suggestions from without and in the mesmeric the patient is not spoken to by the operator but acts through the silent commands of the will-power of the operator. The former is suggestion and the latter is will.

Many times a dreamer, although he may be an ignorant person, can interpret his own dream in a satisfactory manner. He does this through his own knowledge of his inner self, common sense, previous happenings, and what he expects on the morrow. That we may solve the riddle of dreams no individual happening can be so trivial as to be left out of consideration. In a dream the most ridiculous picture may have a reverential bearing on the most sublime. What may be symbolized as a source of annoyance to the farmer may be used by the subliminal self of a clerical mind in a figure denoting peace or tranquility. For instance a negro in one man's dream can always be taken to mean annoyance or provocation.

This is probably acounted for on account of the man having been reared in the South and from his childhood until twenty-one years of age had charge of Negro workmen seeing that they worked faithfully and wasted no time. This same figure of the Negro in some other person's dream may denote ease, comfort, or a lazy time. We mention this to show the importance of detail and individual study.

We must not forget that man is spiritually made up of three persons and during the wakeful state the three are in the possession of the first or conscious self, acting in unison with the other two. This is the triad or trinity of man, possibly the image or likeness of the Godhead. The body is the visible instrument or tool used by the combinations of persons to convey their thoughts to the external world. We are accustomed to think that the three persons can gain their knowledge of the outside world through the five senses only. This is partially true but the Hertzian or other etherial and electric waves impress themselves on the edge in various unexplained ways. In a blind person a word or any object may picture itself across the brain as plainly as if it were a picture thrown on the screen before a retina and this too after the retina has been destroyed. Take an individual with or without a retina place the two poles of a galvanic battery to the right and left temples, interrupt the current and fire (spark) can be seen to cross the forepart of brain. Take the professional telepathic word reader and bring him into a room blindfolded while the persons of the room have their minds concentrated on some one object. The discerning operator will see a picture of the object flashed across the front part of the brain. These are indisputable facts I have seen carried out in practice.

With the third person of the triad the subject matter is drawn up as it were from the deep recesses of the brain and when pictured in the brain remains longer than the telepathic word or the galvanic spark. Like eternity this third person knows no time. Past and future are to it unknown. All is an ever living present. It knows no time as reckoned by man. Hence comes genius and the inspiration of poets we sometimes read of. It knows nothing but the truth, speaks the truth, cannot err for it dips directly into the fountain head of knowledge. As long as it can hold in abeyance the first and second person and can use the brain or other organs of the individual without interruption for a period, it speaks eternal facts on what is already known; as may be witnessed in musical and mathematical prodigies. Whether this knowledge is an endowment directly from Omnipotence or a knowledge gained through the medium of etherial waves and laws unknown to us can not be said. I am disposed to the latter thought believing that the distance between the Omnipotent Trinity and the trinity of man is veiled with portals as vast as that between an ordinary bird and the most minute microorganism. To say the least it very much concerns us in our every-day life.

Tartina dreamed the Devil's Sonata. Coleridge of Kubla Khan fame was a dreamer. Dreaming, Belshazzar rioted his kingdom away. Dreaming, Joseph saved Egypt from a famine. Dreaming, Napoleon turned Europe upside down, and a dreaming Columbus discovered America. In fact, dreamers make the world move.

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The New York City Skin and Cancer Hospital, Second ave., corner 19th St., announces that Dr. L. Duncan Bulkley will give a thirteenth series of free Clinical Lectures on Diseases of the Skin in the Hospital on each Wednesday afternoon from November first, to December 20th, 1911, at 4:15 P. M. This course is free to the medical profession.

MUNICIPAL FLY SWATTER

JAS. DeARMOND, M. D.
Davenport, Iowa

This year of our Lord 1911, will surely be memorable in that there were fewer flies to pester humanity and invite disease and death. The "Swat the fly" crusade worked wonders but the real work was done, not by the willing and eager swatters, but rather by the authorities that demanded and secured clean alleys and streets. A willing hundred or thousand swatters are futile against a foe, that produces a full grown family in a fortnight and numbers among its descendants untold millions. The eradication of the fly must come from stopping the breeding of the fly. When you stop the flood you make eradication a smaller undertaking. People must be taught that to throw the rat, their ingenuity as amateur trapper has secured, into the street, is a crime and the same penalty must be dealt out to offenders as would follow were the animal a horse or a cow. The principle is exactly the same. What would we say were we to have our legislature pass a law making horse stealing a capital crime and chicken stealing a misdemeanor? The principle is the same. Along with this elimination of the fly pest comes another matter of equal importance and relating to the first matter. Chickens and dogs can be, and are too often, first grade aids to the fly.

Keeping chickens within city limits should be prohibited. Naturally the chicken is an odds-on favorite as the filthiest animal we have. What a chicken won't eat or try to eat holds the defense of size always. In a state of confinement the chicken can develop odors not dreamed of in Cologne. As tresspassers they are "birds." That they produce eggs is not enough compensation for the nusiances they insure. The rural districts are entitled to a monopoly of the hen family.

Dogs please many people who ought to be able to learn to be pleasant to other people. A dog is a good companion, but with so many humans to select a companion and friend from, a dog ought not to be listed in the array of necessities. There never was a dog kept within the corporate limits of a town or city that was not a nuisance to somebody. If the dog is kept housed up he is denied that liberty without which, he is an abused animal and when given the liberty he wants and needs, he marks his progress by vagabondage that invites profanity and a desire for blood—"dog's blood," but not always that alone. The man who raises flowers to beautify his garden or even bushes to bear beautiful flowers; who has a beatutiful sward round about his place is not impressed as to the good citizenship of his neighbor who lets his dog make a wreck of it all in an effort to sharpen the claws he never uses to fight the battle, he is ever keen to fight, until an opportunity presents itself and then he has important business in the next county. These pets upturn cans carefully kept in the alley to hold garbage, thus defeating the householder's efforts at fly eradication.

Then fly eradication means the getting rid of all the multitudinous means by which legitimate efforts in that direction are thwarted. Household pets, if of the kind that stay at home, can and doubtless do often become positively dangerous to those who live near them, but dogs and chickens, not alone are nuisances at home but they visit you and add to your danger and labor by a friendliness, that nothing short of a gun can thwart.

We have ordinances demanding that manure shall be removed so that the confiding fly may miss his guess by about a week in the egg laying effort to swarm the earth but enough of him will follow the dog and stay by the chicken coop to keep the fly supply away beyond any recognized needs. The whole question of fly eradication

seems to sift down to another declaration that, "eternal vigilance is the price of liberty" from a depredating host, that carries such possibilities for death and suffering as are beyond computation. Cleanliness spells it all and while I have mentioned a couple of favorite offenders there are others and the day is coming when good citizenship will not belong to the man, who to please an idle fancy, or secure questionable companionship, will harbor a nuisance, all because he wags his tail so faithfully.

THE DOCTOR

D. L. FIELD, M. D.
Jeffersonville, Ind.

Franklin said: "If a man keeps his office well, his office will keep him." If a doctor does principally an office business, i. e., if he has some specialty, he can, and must keep to his office; but a busy, general practitioner, can't stay much in his office. However, as far as he possibly can, he should keep his office hours. Some doctors have various contrivances which bring in money to the office; such as Incandescent Lamps, with a cure-all in the shape of red, white, blue and yellow light, with heat from the same; which they claim, quack-like, will cure rheumatism, neuralgia, swellings, eczema and do everything and everybody. Then there is the doctor who claims such marvelous cures with his X-Ray Machine; and generally succeeds in burning you up. The electric doctor claims to cure every nervous, ataxia, and paralytic case, with his batteries. The effects of electricity are all right; but it has only a limited, and withal, a disappointing effect. Then we must not forget the osteopath,—or rubber—who finds so many spines out of alignment. Everything depends on the influence of nerves of the spine; although hunchbacks live to old age.

Don't forget magnetic healers, and the psychology doctor! But we have doctors by profession, who disdain all tricks and imposition.

The crying need in these times, is the all-round, general practitioner; as in these days of so many so-called specialists, and such a vast number who practice surgery exclusively, the good, old-time family doctor is getting to be a "rara avis."

The good old family doctor. What a place he held in the confidence and respect and adoration of the family. He was consulted on almost everything: physical, moral, social, and what not, among his families. He had a power and influence in the management of the sick as his patients believed implicitly in his solid and practical judgment; that his brain was the foundation of unerring wisdom; he knew the temperament constitution and idiosyncracies of every member of a household; and knowing these, he was successful in treating their ills. They believed he possessed sovereign remedies for all the ills of the flesh, and he was appealed to on all subjects.

Experience and skill are indispensable, and those were accomplishments the old-time family doctor possessed, even if he did have only the cruder medicines as his weapons against disease.

They were so firmly intrenched in the confidence and veneration of their families, that they were rarely harassed by meddlesome officiousness from outsiders, and consultations were never sought except by the physician himself. As a rule they knew what to do under any circumstances; and seemed to know almost by intuition, what the trouble was, and with but meager text-book knowledge, they cured the sick, all the same. Intrenched in families, the physician gets faithful and intelligent cooperation and charitable allowance is

made for any shortcomings or failures in treatment. The family doctor didn't rush in, and rush out, but tarried till he ascertained by every true means, the true condition of his patients. The doctor of generations back had a reasonable degree of success in the treatment of disease with the remedies then known. While cupping, leeching and bleeding are obsolete, still those who bled conservatively, and only in extreme cases, didn't make any mistake, as the practice of blood-letting is about to come in again. The question may be asked, have we of the present day any warrant for claiming that we cure more diseases than did our forefathers of the profession? Of course, the agents used now are more concentrated and palatable; but the results are no better than they were fifty years ago. In old times there was a great veneration for the science of medicine; and the doctor held a place that the present hurring, grasping, mercenary practitioner cannot occupy. The honest, painstaking doctor of the years gone by, didn't practice his art so much for financial success, as he did for the relief of suffering, irrespective of fee or reward. The family doctor faithfully attended families where he knew he could get no reward, save gratitude. He was actuated primarily by motives of true philanthropy, and they never amassed much here, but perhaps I should apologize for these random, disconnected thoughts.

LOOKING INTO THE PAST.

Sanitary rules are as old as the history of man. Moses knew all about them. The ancient Egyptians were well informed on the subject, but the subject of hygiene is a comparatively new creature. It was born of empiricism. Two hundred years ago the death rate in London was about eighty to one thousand. Now it is not more han one-fourth of that. One hundred years ago, ships of England were almost driven from the seas by the fearful ravages of scurvy. Prisons and barracks were decimated by typhus; and smallpox unchecked by vaccination, claimed a large tribute from every nation. The use of acid fruits and vegetables were found to mitigate, and prevent scurvy. Pure air, cleanliness, and proper attention to diet, removed most cases of typhus. To the simple Gloucestorshire folk, are we indebted for the means of stopping the plague of smallpox. Hygiene, though justly called a science, is not such, apart from that which underlies medicine. It has no laws, and exercises no functions which have not been evolved and evoked by medical labor, and research.

For nearly one hundred years after the founding of the Colonies, no medical school existed in this country. Medical pupilage, during this period, afforded the only means of acquiring such education. After the term of study was completed, a certificate was given which entitled the holder to practice medicine throughout the Colonies. If anyone aspired to a degree, he was compelled to attend some European University to attain it. Before the war of the Revolution, and but a few years before, a school was established in Philadelphia, which has been perpetuated in the Penn. University and one in New York as a department of Kings, now Columbia College. The instruction in these schools was restricted almost wholly to the elements of Medical Science. The illuminating clinic was unknown. What a travesty these ancient teachings were, when we consider the conditions and advantages of modern colleges. But these mother institutions have an aspect which makes them of blessed memory. They had a high standard of requiremesnts. In Kings College it was required, First—That there should be a preliminary examination in Latin, and some branches of Natural Philosophy. Second—Aftetr three years pupilage. and one years complete course of lectures, the bachelor's degree was conferred upon worthy candidates. Third

—After another year and two courses of lectures, students twenty-one years old were admitted to examination for the doctorate; and were required to prepare and publicly defend a thesis on some medical subject. The schools ceased to exist during the Revolutionary War (but were reorganized soon after, together with Harvard, Queens, and Dartmouth. They were all vigorous in requirements, and carefully guarded the honor and dignity of the profession, in exercising their privilege of confirming degreese, and at the close of the eighteenth century there were in all the Colleges but two hundred and fifty graduates. The first quarter of the 19th century the schools increased to sixteen, distributed over the country. The alliance with the Universities ceased, and independent Medical Schools were chartered by the legislatures of various states. The European method of teaching and licensing, which had hitherto prevailed in a large measure, ceased; preliminary qualifications were no longer demanded; the minimum of requirements were pretty well adopted; the time of study was shortened; the examinations became less difficult; the writing and defense of the thesis were remitted with the effect to materially depreciate the value of a medical diploma at home, and wholly rob it of its respectability abroad. From this time Medical Schools assumed a distinctive American type. Schools of inferior grade sprang up all over the country. Men with very limited qualifications, occupied chairs. Diplomas were easily obtained, by merely paying twenty-five dollars and undergoing very little examination. A candidate's fitness was determined by his career as a student, and the examinations were a farce.

The American Medical Association came into the field, and attempted to effect a reform in medical education, requiring higher standards; but there was no improvement till within a period not very many years ago.

If the functions of medicine are debauched today, it is because in every community, men of insufficient preliminary education and training are allowed to undertake the practice of medicine. Finally, to intelligently and successfully practice the healing art, a man must have good perceptive faculties, enlarged reasoning powers, an educated judgment and a disciplined mind. He must be both inductive and deductive. The education which gives the inclination and ability to use the mental powers in solving the problems of disease, must, in a large measure, be acquired before the Mdical Course of Study is begun. Medical Schools cannot bridge the chasm of illiteracy in their matriculants. The fundamental need then is better literary attainments for those who would undertake to study and practice medicine; and any scheme which does not keep this fact in view, must fail of success.

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The address of Dr. Wiley at the Conservation Congress held in Kansas City, Mo., last month, is a strong presentation of the present abnormal situation, as a nation, that we occupy in our neglect, in a large measure, as a national government, to try to "conserve" the greatest asset of any nation, viz., the health of the people individually and collectively. The speech is so good that every doctor ought to read it and we are tempted to break our rule and publish it in this journal. If requests enough are received, we may do so yet. In a recent interview, the doctor is quoted as having said, "what we need in this country is, some one with enough sand in his craw to enforce the pure food laws and drive every adulterator and quack out of business."

IRON SUBSULPHATE

J. A. BURNETT, M. D.
Marble City, Okla.

Iron subsulphate or Monsel's salt is an old but very valuable remedy in various conditions.

Dr. Chas. W. Thayer of Muscogee, Ind. Ter. has the following to say of it:

"Next time you have a case of erysipelas take two sponfuls of Monsel's solution in a quart of water, wet a cloth with it and lay on the inflamed spot and see how quickly it will cool it. As it gets dry repeat every few minutes, give strychnine freely and almost before you know it your case is well. It cures in a few hours. No foolishness about it."

Dr. W. J. Wolf, of Chatham, N. J., has the following to say:

"Tonsillitis—In all cases of sore throat I give a gargle of:

℞ Pulv. Ferri .....15 gr.

Sig. Dissolve in an ordinary tumblerful of warm water and gargle every two or three hours.

"I believe this gargle if used in the early stages of diphtheria will abort that disease and as we are told by the bacteriologist that the bacillus of that dread disease can be found in the mouths of healthy persons I think we should always treat our cases of tonsillitis, pharyngitis, gingivitis, etc., with an eye to prophylaxis as 'an ounce of prevention is worth a pound of cure.' "

Dr. Ephraim Cutter of New York City says of liquor ferri persulphatis:

"Some years ago I was called to a lady in the last stage of a disease that was not made out previously and that I was put to my mettle to solve the problem. After going over the microscopic and rational physical signs of disease the diagnosis was cancer of the pancreas. Never having seen a case of it the diagnosis seemed doubtful until it was confirmed by an autopsy. Perhaps the exceeding interest of this case may explain the absent-mindedness to a slight punctural wound on my left fore finger at said autopsy. But it soon attracted attention by pain, swelling, glowing redness extending over the whole finger nearly and not yielding to the applications of the ethereal tincture of iodoform a remedy I brought from Europe in 1862 and which I had found valuable for hand puncture and abrasions. But the figer grew worse and the idea come to me to try the liquor ferri persulphatis put on clear. It was done, almost at once the pain was relieved, the swelling went down, the color improved, in brief the finger got well in a short time and does good service now. I supose it was a blood poisoning from a dissection wound and that I ought to be thankful for escaping with my life.

"The styptic use of this preparation is only one of its valuable applications.

"In 1871 I visited California and calling on my medical classmate, G. L. Simmons, M. D., of Sacramento, Cal., an honor to his profession, with whom I did some studying in our pupilage. He called my attention to his use (original with him) of the liquor ferri persulphatis U. S. P. as a topical application to the throat and nares. About a drachm to the ounce of glycerin he applied by a sponge probang not only to the pharynx but through the nostrils to the superior pharyngeal space. Also a gargle one drachm to sixteen ounces of water. I profited much from this information and found it very useful as he directed and more so as by it an adenoid growth on the cervical vertebra of superior pharynx was entirely removed and with it the inability to do sums in arithmetic at the age of twenty-three years. Since then the patient has held his own in his commerical business with a clear head.

"Note—The action here was not styptic but tonically astringent emptying the dilated capillaries and stimulating them to normal action.

"As to the rationale it has always seemed to me that the excess of sul-

phuric acid had something to do with its value. I once cured a case of necrosis of the alveolar process by the aromatic sulphuric acid U. S. P. It acted beautifully on the live tissue and the dead. Gave relief and made possible an easy removal of the necrosis in comparatively short time. In ingrowing toe nail I have found the preparation reliable when the nail convexity was scraped to thinness.

I am quite aware that I am writing on a back number medicine but I cannot but speak well of the bridge that has carried me over a railroad of destruction by sepsis."

Dr. Crandall in his book, Diseases and Their Cure, in speaking of hemorrhages has the following to say:

"When profuse I prefer that which has never failed me—the liquid or the the powdered persulphate of iron. Physicians can include no drug more necessary or reliable for the purpose in their medicine case. Applied over a cut of any kind it never fails of its mission. Even in some internal hemorrhages post partum and from the stomach or bowels I have given it with success."

Iron subsulphate is a powerful haemostatic agent but it is not used to control any hemorrhages only where it can be used locally. In uterine hemorrhages it can be used in the uterus and in cases of threatened puerperal fever it would no doubt be of value if used in the uterus.

The antidote to Monsel's solution is common soap.

Iron subsulphate should be used more often and studied more closely as it is a very useful and important remedy.

HOSPITALS IN SMALL TOWNS

The accompanying picture is a "snap shot" of a corner in one of the smaller, though strictly up-to-date, hospitals in Chicago, unexpectedly taken, just as they were getting ready for actual work, in the operating room. The great and constant care taken to protect the patient from the contaminating influences of any bacteria from the surroundings, in any manner, is worthy of note and is characteristic of the work in all modern hospitals, today. In any of them it is considered almost or quite a crime to have any outside infection of any kind attend or follow the operation. Many more physicians could easily prepare some rooms and furnish them, for the emergency cases occurring in the smaller places where they are located and where no regular or suitable hospital facilities are readily obtainable, than have done so.

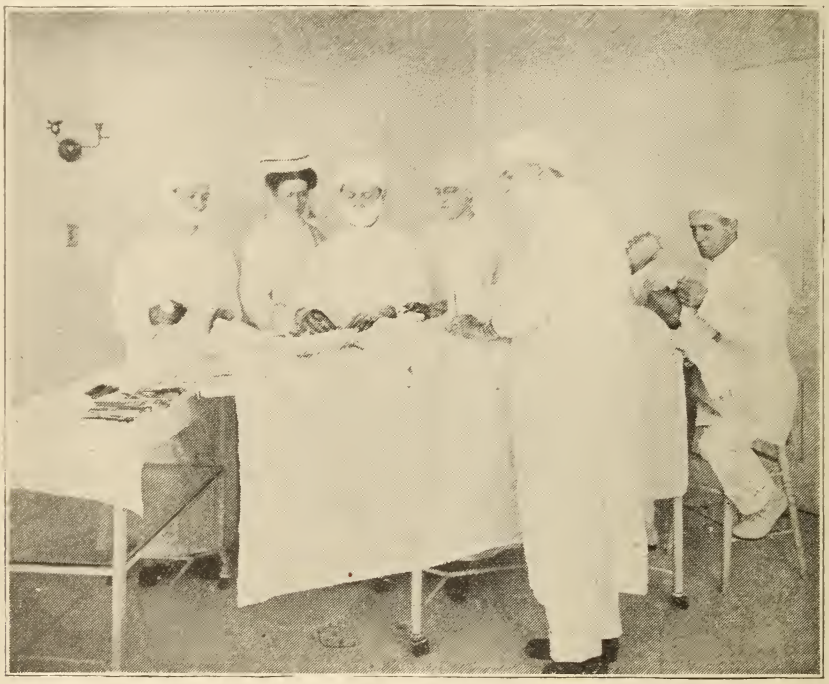
The writer has had personal and a very satisfactory experience in arranging such an operating room, where emergency cases of an accidental nature and of illness, attacking homeless people, including those boarding in hotels or private homes, were taken and where many elective operations were performed by experts from the larger cities 60 or 100 miles distant.

Results obtained were very satisfactory to the Consulting Surgeon, also to the attending physician and to the patients and their friends. The attending physician had the care of the patient after any operation and his full share of the credit for a successful termination of the case. This certainly seems preferable to taking the patient, when sick or injured and often unable to safely travel, away from home and friends to be in noisy and unusual surroundings instead of remaining near their families and friends and where they can pass through their convalescence amid familiar scenes and usual conditions. The details of the arrangements were as follows: A practical nurse, with two

adult children, rented a suitable and properly located house larger than her needs required and sublet three rooms on the ground floor, with separate entrance, to the doctor, at a moderate and proportionate rental, to be paid by him, when there were no patients in the rooms.

Nothing was paid when the patients were using and paying for either of the rooms. One of the rooms was prepared for an operating room, by painting it with three coats of white paint, ceilings, walls, openings, and floor. These painted floors were kept unbroken and were thoroughly washed and made septic before each operation. A set of enameled hospital furniture was secured, consisting of an operating chair, two stools, an instrument stand, with glass shelves, irrigation and transfusion apparatus and most of the other appurtenances, usually found in operating rooms. The other two rooms were adjoining and one was used for a preparation room. They were large enough for two beds, when needed.

This arrangement became quite popular and was used by any of the doctors in the town or nearby smaller towns, who wished to avail themselves of it's privileges. Several maternity cases were brought to it because of it's desirable location as compared with their homes in, or very near the business district. The rent was about five dollars per month to the doctor when not occupied. It was fitted up at a total expense of less than $100.00 and could be done still less. Besides the advantages derived by the doctor directly, there is a humanitarian side to the question that is worthy of consideration. Affording as it does, a place ready prepared, where different kinds of emergency work can be done promptly and more satisfactorily than otherwise. Actual experience proved these statements to be true.



Operating Room in Park Avenue Hospital, Chicago

PHYSICIANS' VALUABLE DATA

Dr. Barton C. Hirst of Philadelphia, Pa., has written a letter to the different State Boards of Medical Examiners, claiming that, "young physicians are least well prepared in Obstetrics and that, lack of adequate preparation in this branch is productive of more harm to the community, than a deficiency in any other."

From the eight years experience that the writer has had in the examination of recent graduates, as a member of a State Board of Medical Examiners, we are not inclined to agree, that the conclusions stated are altogether correct. While there is always room for improvement in the preparation secured in any of the branches of medicine and surgery, we believe that it is not the more recent graduates that have entered the ranks of the medical profession the most poorly prepared in obstetrics, either theoretically or clinically. In fact, the conditions as regards clinical opportunities for undergraduates in the study and practice of Obstetrics have been steadily improving for a number of years and many colleges have been requiring attendance upon six or more cases, recommended as a minimum number, last year, as stated in the letter, by the American Gynecological Society, for some time. This we have a personal knowledge of as we have made a careful inspection of most of the Medical colleges in four states. It will probably be generally conceded that this subject has always received the careful attention of the students, because of it's peculiar fascination, it's status in their minds and the well-known fact that, it is believed that a general practitioner's success in getting and retaining a valuable practice is often based very largely on their general reputation as obstetricians. Having conducted a great many examinations on this subject, we have found most of the applicants for license quite well versed in a theoretical knowledge of this branch. While actual experience is important and is now provided for in all of the medical colleges, with which we are acquainted, prior to graduation, it is known to all of us, that the forty or fifty cases even, said to be required in Europe, might not happen to afford a complete or even a very great variety of the difficult cases, that will come some time, to the doctor who attends many confinements though he will not know, always, when. Of a necessity the "out-practice" of this kind obtained for a student, is among a class of people, who owing to their manner of living, etc., furnish a small proportion of difficult cases. In many cases in practice the obstetrician never has any opportunity to see his patient till labor has commenced and possibly not until much harm has been done by the unskillful and septic attempts of a midwife to assist the prospective mother, but he is held largely responsible for results, even then. Even when a doctor has been engaged in time and given an opportuniy to diagnose conditions and prepare to meet them, another doctor may be asked to take the case, at the last moment, because it is impossible to have the services of the one engaged. This agrees with the necessity for the high average of attainments, that the doctor is pleading for and which we agree is most desirable and important.

Perhaps the author of the letter is so situated that he is likely to see an abnormal percentage of difficult cases and mismanaged ones, that have been finally taken to a Maternity hospital. The exact knowledge to be gained by assisting in the care of even a few dif-

ficult cases under skilled supervision in a maternity hospital is preferable to any given number of the out practice kind.

Many a very skillful accoucher among the older graduates never saw a case before they received their diploma and still no more mistakes were made in this, than in other ways that ever came to our personal knowledge. It is to be remembered that a large proportion of obstetrical cases will terminate naturally and that meddlesome midwifery is more to be deprecated than any other feature and some of the modern doctors seem to have a strong tendency in that direction. The importance of the care of the infant after it's birth seems to us to be underestimated and we find the newer graduates making many errors of omission and commission too, both in their examinations and in their actual practice, therapeutically.

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At the fourth annual meeting of the Wisconsin Anti-Tuberculosis Association held in Milwaukee, October 13-14, 1911, it was decided to broaden the scope of the work of the Association to include all communicable and preventable diseases, but not to change the name of the Association.

This decision was arrived at after a thorough and interesting debate on the question.

Open-air schools, report from the Milwaukee Child Welfare Commission, an address by Rowland Haynes, assistant secretary of the National Playground Association, another by Sherman T. Kingsley, superintendent of the United Charities of Chicago and another by Dr. Richard C. Cabot of Harvard University, on the subject of "Preventive Medicine in Social Service," besides that of Dr. M. P. Ravenel of the University of Wisconsin, concerning the work of the Wisconsin Association, and addresses on "the mentally deficient and insane" by Dr. George B. Mangold of St. Louis, Mo., and Dr. Adin Sherman, of Winnebago, Wis., and by Miss Carrie B. Levy, Milwaukee relative to work for the blind, Miss Edyth L. N. Tate state organizer of the Assn., Miss Edith Shatto, Secretary of the Milwaukee Tuberculosis Commission, and many other of the physicians of the state including Dr. C. A. Harper, Secy. of the state board of health, shows how varied and important were the humanitarian subjects considered and bears evidence to the wisdom of adding some of these topics to the one indicated by the name of the Association. Dr. J. M. Beffel advocated that the association aim to reach all preventable diseases, even those growing out of the "social eveil," and he is in favor of a state health commissioner at a liberal salary and also favors county health Commissioners, who should be trained men for this service, in each instance.

Dr. T. L. Harrington spoke in favor of a campaign of instruction on social diseases.

Te Charities and Correction conference was held at the same time and several joint evening sessions were held, with the association.

Miss Emma Lundberg and Miss Cottrell of Kenosha; Miss Emma Sands, Oshkosh and Mrs. Ivah B. Wiltrout, Eau Claire, spoke on various phases of the conference work. Dr. M. P. Ravenel, of the University of Wisconsin was re-elected president of the Association and Rev. Walter F. Greenman, Milwaukee, president of the Conference.

Different reports received indicates that great progress has been made in the general war that is being waged against Tuberculosis in this state. Milwaukee has a commission of its own which has accomplished much during the last year and has adopted some new and very effective plans. The meeting of these two associations for the conservation of human lives and the betterment of the conditions and environments of the deficient classes marks another important mile-

stone on the road to progress in these directions.

Dr. Harvey Dee Brown, state lecturer for the association in an address before the Milwaukee Society of Ethics said that, "The era of revolutionary changes in the material world is over for the present," but "the center of human attention has now become focussed upon social re-construction. Man has come to be more interested in his fellow man and his relations than in anything else."

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The September Recorder has been in my hands a few days. As is my rule, I have read every word of the text and most of the advertisements. Advertisements of pharmacists, surgical instrument makers, as well as those calling special attention to medical creations, are placed in medical magazines with the express view and purpose of engaging the practicians' attention and that he may the better be posted upon the valuable formations—old and new, that are being introduced into his practice, are to help push him forward along with the most knowing. Years and years ago, (for I am an old Jay), I was egotistical, much "pufft-up," over my supposed ability to prepare first class medicines, tinctures, pills, extracts, plasters,, medicated syrups, ointments, and a number of others. I prepared them, but I long ago decided by comparison, in a very bunglesome way and with many incongruities. I began to read medical journal advertisements and pharmaceutical literature that the many manufacturing pharmacists furnish to physicians. I tested their free, (to physicians), samples to find them many laps ahead of my own loosely brought together formations. It is needless to state that I make common use in my practice of very many of these excellent and beautiful pharmacals and others. Do not be afraid of being labelled a routinist but rather fear the charge, and maybe justly, of being a rear-rank doctor just trying to do good work with obsolete tools. Yes, the writer scans about all the medical journal advertisements coming his way and always to be benefitted by the custom.

But the text, Dr. Thorne, of the September Recorder is ne quid nimis, multum in parvo, and any other truthful compliment that one might indulge. The contribution by Drs. Burdick and Abel, on the treatment of ptomaine poisoning and other conditions caused by Bacteria, is a real addition to medical literature. And so refreshing to note that the word auto-infection does not appear in the article. That the body does not under any pathological circumstance, inoculate or toxicize itself should be apparent to even an ordinary physiologist and pathologist; nevertheless the term auto-intoxication-auto-infection, is urged upon us even at this late day, quite often. It is a relief and pleasure to note that these erudite investigators do not use the meaningless term. Hematuria is well written and helpful. "Little Things" is so well presented that the writer indulged the wish, while perusing Doctor Servoss' lines, that he were young again that he might observe those truths, Little Things, anew. But the acme of interest was reached in Poly or Simple Pharmacy. Sure enough, who can tell the result of union of two or more organic bodies, or who is able to divine the effect of a compound when introduced into the animal economy. The writer has taught for the last twenty years the absurdity of most vegetable polypharmacy. Our agents should be simple and mostly single to be direct in action and results. One might receive a valuable hint from Prof. John Uri Lloyd's novel—Stringtown on the Pike—the rival of Redhead, in possession of knowledge of a slow poison—concocted by combining yellow puccoon, and as the writer remembers the story, gentian and one other simple vegetable, either

of the three non-toxic used singly, or even when two of them were in the combination but on bringing the three together an insidious poison would result. The story is ingenious and points out a moral. Chemists have long claimed the possibility of such or like behavior on associating certain substances. The rational and safer practice is to use the single remedy or as near to single as close and often repeated observation admits.

W. L. Leister, M. D.
Oakland City, Ind.

BUSINESS SIDE of the DOCTOR'S LIFE

Fees.

Inasmuch as doctors, a very large majority of them at least, must provide for their many legitimate expenses by securing "fees" for their advice and their services, from their clients, this subject is of primary and vital importance to each of us.

We affirm the following propositions and invite a full and free discussion of them: Fees should be higher than they have been, in general, equitable, that is fair to both parties concerned in the transaction, absolutely uniform and promptly collected. They should be higher, because of greater cost of the actual necessities required to sustain life, the increased income of other people, the greater skill attained by the modern teaching of medicine and the accumulation of experience and better facilities for placing it before doctors, in the shape of medical periodicals and the frequent discussions in various medical societies, etc., all of which cost the doctor both time and money. Besides, more is required of the present day doctor in the expenditure of money for the purchase and maintenance of a means of transportation, which every one demands shall be some one of the most modern, or at least expeditious, modes. Telephones must be paid for and literally in the plural too, in many places and tasty attire worn and liberal donations made to all the charities of the community, in money, aside from the forced benefactions of time and services given, that others are largely exempt from. They should be promptly collected, because it is not possible for the doctor to comply with the above requirements without promptly paying for them. It is not right to compel the doctor to pay interest on the money that he has earned, to some of his friends who are willing to loan money to him, to meet his current expenses. Fees should be higher in rural communities, particularly, because it takes more time and costs more to do this work than any of the other work, that doctors do and the prosperous farmers have had discriminations made in their favor, long enough. Some M. D.'s will exact the full price from a factory operative or other wage earner, in the same block as his residence, or a little distance away and make a visit to a farmer for nothing. It happens in this way, in many communities a mileage fee of fifty cents or one dollar per mile, one way, is charged and it is supposed that the regular fee will be paid, as it ought to be, in addition, but the practice, very generally too, according to our observation, is to accept a fee that provides for the mileage only. It is surprising what a short distance it is to town too, unless your speedometer has made you "wise" and even then, that is disputed, as unreliable. Conditions throughout agricultural districts are much the same and we cannot see any reason why, if doctors can and do collect one dollar per mile, in some parts of the country, all may not have it, especially as it is supposed to compensate for loss of time, as well as cost of transportation. We know that, where

competition is less keen and unscrupulous, these fees are paid and secured just as easily as elsewhere. The fee of from one to two dollars for the visit are added too. This is more rigidly adhered to in the newer farming districts, where they can not afford to pay as well as they can in older parts of the country. If we depreciate our own services, by placing a "cut price" on them I am sure that we ought not to complain, if others take us at our own "valuation." We ought to give our best and most careful and painstaking service and demand our pay for it. Fees can be secured more promptly now, because, it is easier to have an agreement with our fellow-practitioners, who are reputatable and ethical, today than ever before, by which we can agree together to send out bills regularly and insist that they shall be paid promptly.

Yes, of course, there are still some medical "outlaws" in nearly every community who will cut prices but any practice lost, eventually or permanently to them, because of this reason, is not worth having.

No greater mistake, in a business way, was ever made by a physician, either early in his work, or later, than to suppose that giving his advice or services, either gratuitously or for a less amount than the regular fee, would make him fast and influential friends.

I am sure that others, as well as myself, will testify to the truth of this statement. I confess to having tried it and can not remember a single instance, that did not result differently than I had expected. Please give your opinion on this subject to us, stating if you will, the fees charged in your locality, and any difficulties that are met with, regarding your collections, etc. Other matters, appropriate to this department, will be; systems of keeping accounts, the selection and furnishing of an office, what office hours to keep and how to manage it to be able to be as punctual as possible in doing so, what and how much recreation to take, whether to prescribe or dispense our medicines, forms of billheads and other office stationery, use of the camera in accident and surgical cases especially, (we want them to illustrate your reports of said cases), how shall we protect ourselves from malpractice prosecution and persecution, attendance upon medical society meetings, our duty in the preparation of papers for publication and whether they have any legitimate business value to us, in whose name shall our real estate be held, etc., etc.

DISEASES OF CHILDREN

DR. J. V. STEVENS,
Janesville, Wis.

NOTES ON DISEASES OF CHILDHOOD.

Notes and articles in this department will be considered to apply to infancy to the end of the second year and to childhood to the end of the fifteenth year of life, as is the usual custom in limiting the age, by authors and specialists. Queries appropriate to this department are solicited. Favorite remedies and formulae are requested and short papers on the Etiology, Pathology, Diagnosis and Treatment of the diseases peculiar to childhood as well as those dealing with the Physiology and proper training and education of children and anything that can be properly considered under the title of "Child Welfare," being brought before the laity as well as physicians at the present time.

CHILD WELFARE.

At the annual meeting of the Wisconsin Federation of Women's Clubs held at Green Bay, recently, attention was directed to the prevention of immorality in the young, by providing proper

recreation for them. In this connection it was pointed out that in cities of less than 2000 population there were more delinquent boys and girls, in proportion to the population, than in larger and in some of the very lage cities.

Unquestionably this means of prevention of moral delinquency deserves far more attention that it has received, so far. In continuation of the consideration of the Child Welfare work that interested the delegates so much, the importance of giving more attention to the heating, lighting and ventilation of public school rooms was dwelt upon. Many defects of vision have been and are being caused daily by improper lighting of school rooms and placing the pupils in a wrong position as related to the direction from which the light is admitted, as well as to too great differences in the intensity of the light entering the room at different times of the day. Carelessness in regard to the heating and ventilation of school rooms has been the direct cause of the loss of many lives as any observing physician can testify.

Added to the usual duties of the Medical inspectors of school children should be this most important phase of school hygiene.

No school should be permitted to continue its sessions without having the services of a competent and careful and conscientious medical inspector. (Please tell us about the conditions in this respect in your locality, what is being done and what is paid for the work and of the interest, if any, shown by the public, relative to the matter).

SEX EDUCATION.

Mrs. Ellen M. Henrotin, Chicago, Ill., the well-known and greatly respected worker for the betterment of child life said recently, "Sex relationship is the most sacred of human relations. The creation of a human life should be thought and spoken of as reverently as is the end of life, death. It is the abuse of the divine instinct, to give life, which is the root of most of the evils of society; the courts deal with thousands of resultant cases; hospitals are filled with patients and jails with prisoners because of this. The health of thousands of men and women is destroyed by the same cause. It is of the greatest importance that youth should be safeguarded, by knowledge, from these dangers—and such teaching should be made a part of our general public school system." We know that there is some differences of opinion among doctors regarding the practicability of this proposition, therefore please give us your views on this question.

OPHTHALMIA NEONATORUM.

One of the most interesting books that can be obtained by any physician in any state, gratuitously, for his library is the codification of the laws of each state, relating to the "powers and duties of Boards of Health and Health Officers."

In Wisconsin one can be obtained of Dr. C. A. Harper, Secy. of the State Board of Health, at Madison, Wis. We are sure that he will supply those of other states too, who may ask for the book and other publications of his office, these latter, particularly the regularly published "Bulletins" should be read by every doctor in the state, at least. Section 1409a-2 (Laws of 1909), clearly states the duty of physicians, midwives, and parents or guardians, regarding cases of Ophthalmia Neonatorum. Your interest in this important section of our laws may be increased, when you are reminded that you are subject to a fine of $100.00 if you do not fully comply with its provisions. The prevention and care of this disease is very carefully outlined in the statutes. Would it not be acting wisely to read them, or to read them again and to have them where you can readily find them and all of the other laws of a like nature, at any time that you would like to consult them. Those in charge of schools for the blind are continually finding and

reporting, that the history of many of the inmates of these institutions show that the provisions of the law were not complied with, either because of carelessness or of ignorance. Neither of the two are valid as excuses, under the circumstances, when the state has done so much to try to preserve the eyesight of it's citizens and to avoid the great expense that is incurred in caring for those who are unfortunate enough to become blind, aside from the terrible affliction unnecessarily, almost criminally inflicted upon the individual citizen.

INFANT MORTALITY.

Great interest is manifested in the annual meeting of the "Amrican Association for the study and prevention of Infant Mortality" to be held at Chicago on November 16-18, 1911. The profound and increasing concern shown by social workers and many others in this very important subject is gratifying to all thoughful people.

The fact that even in this twentieth century, twenty per cent of all infants born, die before they are one year old, is certainly sufficiently startling to account for and to still further stimulate the efforts of all those who are interested in humanitarian projects and probems.

Professor Charles B. Henderson of the University of Chicago says, "The world has awakened to the cry of the little child. Nations may live without paying much attention to their od men and women, or even to their boys and girls, but no nation can live without protecting and nourishing it's infants. Also the same causes that lead to infant mortality fill our penitentiaries. Any effort to improve conditions, not only fights infant mortality but aids the physical development."

Sherman T. Kingsley, director of the Elizabeth McCormick Memorial Fund on "Infant Mortality, It's Causes and Methods for It's Relief," said that, "It was impossible to do anything for infants until something had been done for the mothers and that children born in surroundings where mortality was large were beaten at the game of life before it began."

While a careful study of the statistics of infant mortality will show some improvement in the last two decades, it is so slight that it is not very gratifying, but encourages the making of more strenuos efforts in this direction, where it can be easily shown that results have been in direct proportion to the intelligent attempts that have been made in improving these conditions.

It is very encouraging that several philanthropic people, who have the control of large sums of money, have become vitally interested in the question and are devoting their time to it's consideration, as well and have made provision for the future of this most interesting and important investigation, by endowments of money, that will enable skilled investigators to continue their work in the future as well as at present.

INFANTS' TOILET POWDER

Equal parts by measure, of pulverized Lycopodium and powdered Gum Acacia, or in the proportion of one part of the former and two parts of the latter, by weight, mixed together, makes the best Infant's Toilet Powder that we have ever seen used.

Moisture does not float this powder from the surface of the skin but causes it to become dissolved and to form a mucilaginous coating that protects the skin from excoriation. It is not only a rational combination, but works out entirely satisfactory. May we have a report from you, if you try it?

BURNS

Pure grain Alcohol applied freely to burns will prove to be a perfect relief, for all burns of the first degree and is a more nearly aseptic application than many used. Keep the surface involved continually wet with it.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,

FOREWORD.

For a number of years I have desired to conduct a department of ophthalmology and oto-laryngology in The Recorder which should be of an original character and different from the usual departments of this kind. The time required to prepare such a department could not be found while I had the business and editorial management of The Recorder as well as my practice to attend to. The re-organization of The Recorder affords me the opportunity to conduct this department on the lines I have thought of, for so long. Now the business management is in the hands of a competent business manager and Dr. Stevens is associated with me in the editorial work, so that I can have the time to prepare each month something on my special field of practice. I shall be glad to have my readers send me original articles on these branches, also any items of news, science or practice of interest. I shall be glad to receive questions on ophthalmology and oto-laryngology, to be answered and discussed in this department. My desire is to have this a live department which will help the general practitioner in his work. I have material in preparation for the November number which I believe will be of practical value to my readers.

OPHTHALMIC OBSERVATIONS.

Lugol's solution of iodine carefully applied to a corneal ulcer, often produces a cure.

Diseases of the eye offer a large and satisfactory field for the application of electro-therapeutics.

The ordinary cataract needle is a splendid instrument for removing foreign bodies from the eye.

An enlarged pupil in an elderly person may indicate glaucoma although no other symptom is present.

Many cases called neurasthenia are entirely the result of eye strain from uncorrected errors of refraction.

As much care should be given to antiseptic precautions when removing foreign bodies from the eye as to more important operative procedures. Serious trouble has resulted from carelessness in removing foreign bodies from the cornea.

Thorough irrigation of the eyes in suppurative diseases of them, is of value not alone for the antiseptic effect but for the mechanical action. The irrigation distends the folds of the conjunctiva and removes the bacteria, making the recovery much speedier.

Never poultice an eye. This should be impressed on the minds of eye patients, especially those having any septic disease. It is very common for people to poultice eyes even when using a physician's treatment. Often a doctor wonders why he gets such poor results in treating corneal ulcers, suppurative conjunctivitis and other infective eye diseases, when if he inquired into the matter he would find that much of his good work has been lost because the patient had applied a poultice which furnished all the needed conditions for pus formation.

The Wisconsin Medical Recorder

J. P. THORNE, M. D. } EDITORS
J. V. STEVENS, M. D. }

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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer or any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 14 OCTOBER, 1911 No. 10

At the annual meeting of the Wisconsin Anti-Tuberculosis Association held in Milwaukee on October 13th and 14th, 1911, the question of whether the scope of their work shall be enlarged to include all communicable diseases will be considered and decided, either affirmatively or negatively, by the executive board, being guided by the prevailing sentiment at the time of the discussion. Dr. C. A. Harper speaks on the negative side of the question.

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The Philmar Company, St. Louis, Mo., have just published a translation in prose of Hieronymus Francastor's "Syphilis," a celebrated poem, written in Latin originally. The author was born in 1483 and died in 1553. He was Professor of Logic in the celebrated University of Padua, Italy. This poem is considered his masterpiece and was entitled "Syphilis sive Morbus Gallicus," and it was from this poem that the name of the disease that he referred to was taken and which it has borne ever since, in honor of his shepherd character named "Syphilis" and which he claimed was the first victim of the disease. The fanciful etiology which he believes to be the cause of the disease is very interesting and his description of the symptomatology remarkably true, to that known to us now. The mechanical execution of the book is fine and it will adorn the libray table or shelves of any physician and afford him many pleasant moments spent in reading this interesting mythological account of the origin of the disease and also of the supposed discovery of a cure for it in the 16th century.

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The recently published report of the cases treated and the results obtained at the Chicago Pasteur Institute for the preventive treatment of Hydrophobia is a most remarkable statement. In the period of its existence, which covers a little more than twenty-one years, 4665 patients have been received and treated besides those, that it was decided were not in need of treatment. In all but 569 cases that were treated, it was demonstrated that the patients had been bit ten by animals known to be rabid, by microscopical and inoculation tests. Only 8 deaths occurred after the immunizing period had been reached. It takes two weeks to establish immunization, hence the importance of seeking the aid of this treatment early. 15 persons had hydrophobia at the Institute, due to the lateness of thir coming. Improvements in the preparation and the administration of the virus have been adopted during the last year. Patients admitted, received bites from rabid animals as follows: from dogs 4088, Cats 175, Horses 139, Skunks 38, Wolves 6, Cows 87, Calves 18, Burros 18, Coyotes 7, Rat 1, Mules 10, Pigs 9, Sheep 3, Squirrels 15, Monkey 1, Rabbit 1, Human beings 67.

EXPLANATORY

In accepting the position of associate and managing editor of The Wisconsin Medical Recorder, I am not unmindful, nor entirely ignorant of the responsibilities thus assumed. During the twenty-seven years that I have been constantly practising medicine, I have also acted as editor of a publication for six consecutive years.

Mention is made of this, simply to show that I know sufficiently well, what it is to try to advance the best interests of the study and practice of medicine and surgery, to have a high estimate of the privilege given to me and a knowledge of some of my limitations and of the many difficulties that will prevent me, in a great measure, from attaining to the ideals that all conscientious physicians have of their work in life.

My opinion of the field that a Medical Journal should cover is, that we have enough of the literature for the profession coming to us from compiling bookmakers and theorists and that, if I am right in my conclusions, there is a demand from the everyday bed-side and office practitioner for concise and concrete excerpts from the daily experiences of their colleagues, doing the same kind of work. True to the name of our journal, ("The Recorder"), we want to bring to light and permanently record as many of the really valuable truths and therapeutic tests, either successful or unsuccessful, as we can induce our readers and friends to furnish us, from the rich store of every faithful doctor's recollections and case books. We want every reader to ask any questions and as often as they may choose to do so, because we know that, from the encyclopedia of the combined wisdom of our readers an answer, as nearly correct as the present status of medical science, experience and information permits, will be furnished. Therefore we expect and urge each one to avail themselves of this opportunity, by bringing your problems to us and by answering the querries of others, as your experience, either failures or successes may dictate. Let us record some of the mistakes that we have made, that others as well as ourselves, may avoid a repetition of them. The old saying is a trite one, "It is no disgrace to make an honest mistake, but it is, to make the same one the second time." We are desirous of making this Query and Answer department a very strong feature and ask you again for your hearty co-operation.

We have some plans for slight changes in the arrangements of topics, which will afford you quick access to the particular department, or to the article, that you wish to read first, when you get The Recorder from Uncle Sam. In brief, we hope to make this journal so indispensable to you in your daily work, that you will be anxiously awaiting it's appearance each month, expecting it to help you solve some of the many weighty problems, that are confronting you all of the time. We have established a department dealing with the business side of a doctor's work, that shall, with your aid, be worth more to each reader, in each number that you receive, than several times the subscription price of the journal, which in spite of all of the contemplated additions and improvements will remain at $1.00 per year for the present. Please remember that we have no intention of dispensing with any of the plans or purposes that have prevailed in the past and which have given "The

Recorder," such an enviable name among medical journals, but that the plans mentioned, are additions only, or the placing of emphasis on former plans.

We are proud of the list of regular contributors to this journal and hope to retain every one of them. They have helped to keep the journal before its many readers and we thank them, for their faithful and self-sacrificing labor and invaluable assistance and ask them to continue to assist us in trying to make this journal, the equal, at least, of any of it's type or in it's field.

Don't you forget that Dr. Thorne is still Editor-in-chief and will continue to give of his best to this publication, exclusively. He will conduct a department devoted to the interests of his specialities too. The press of his professional work is the true explanation of my connection with The Recorder.

J. V. STEVENS.

Such a storm of protests and flood of "resolutions" from various religious bodies, recently in session, have been sent to Washington that Secretary of Agriculture Wilson has found it necessary to write many letters of explanation, of his acceptance of the position of Honorary President of the Beer Congress to be held in Chicago, in which he disclaims any other than an agricultural interest in the raising of hops and barley for the market and states that, he will not be expected to actually preside at any of the sessions.

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Scales weighing so accurately that they will note the difference of weight of the one thousandth part of a milligram are mounted on a solid stone table, resting on supports, which extend downward to the same foundation as the building and placed in a room absolutely vibration proof, are in use in the Radium Institute in London. This institution was founded by the generosity of two English noblemen, acting upon a suggestion made by King Edward. In a strong room in the basement we are told that there is kept one-half teaspoonful of this substance and that it is worth $250,000.00. The specks of Radium are kept in shellac varnish. They are confined in discs when used thereapeutically and one of these containing 70 milligrams is valued at $6750. The tests so far have seemed to demonstrate its value as a remedy in certain cases of cancer, not too far advanced and some other otherwise intractable skin diseases, which are inoperable for any reason. Enthusiasts claim vast possibilities for this rare remedial agent, when the future discoveries, that it is hoped will be made, have more clearly demonstrated how to apply it to various diseased conditions.

The mention of this remedy and its use can not fail to bring to our minds the tragedies attending upon it's discovery and use. Professor Curie's life it is claimed would have been sacrificed, because of burns received, before he knew it's full power and how to handle it properly, if he had not met an accidental death. His brave and extremely capable wife and co-adjutor, is continuing the scientific work alone that she and her husband had pursued together sucessfully.

The more recent death of Dr. Kassabian of Philadelphia, who it is said lost his life from the very condition, that he had devoted his life to treating with the Radium Rays, is another instance, among the many, that have led to martyrdom, suffered by those, who were endeavoring to discover ways of helping to relieve humanity of some of the many ills and conditions, to which we are heirs.

FOR THE DOCTOR'S LIBRARY

EDUCATION AND PREVENTIVE MEDICINE. By Norman Edward Ditman, Ph. D., M. D., Columbia University Press, Publishers, 1911. Lemcke and Buechner, sales agents,, 30-32 West 27th St., New York, N. Y. Price twenty-five cents.

This is a reprint of a 1908 issue of this instructive and practically helpful monograph that had been out of print for some time and for which there has been constant demands.

It deals with this interesting subject from very many different viewpoints and is of special interest to the Internist and to Health and Sanitation officers, as well as to the general public.

The prevention of Tuberculosis, Diabetes, Bright's Disease, Pneumonia, Typhoid Fever, Meningitis, Venereal Diseases and the Infectious diseases of childhood etc., etc., is given prominence and careful consideration. Many valuable statistics of our own and other nations are presented and charts of them have been carefully prepared, to aid the eye in quickly comprehending the statements made. It is shown that the average length of life has been extended 100% or from 21¼ to 40½ years during the past three centuries, and in the same period of time, the death rate in London has decreased from 80 per thousand annually to 20 per 1,000. The mortality rate in New York has decreased in the decade from 1890 to 1900 from 25.4 to 20.5 per 1000. It is a full octavo size book of 72 pages in paper covers. We have no hesitancy in advising our readers to secure a copy.

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GONORRHEA IN THE MALE. A practical guide to it's treatment, by Abr. L. Wolbarst, M. D., Consulting Genitourinary Surgeon. Central Islip State Hospital West Side German Dispensary and Beth Israel Hospital Dispensary; Profesor of Genitourinary Diseases, New York School of Clinical Medicine; Member American Urolsgical Association, etc., etc. Published by the International Journal of Surgery Co., New York, N. Y. No price is quoted. Write to the publishers.

The book is a neat, cloth-bound publication of 175 pages. It is profusely illustrated, thus greatly increasing its usefulness. Valuable features are the treatment of the subjects of "the sequelae of the disease, sexual neurasthenia and urethroscopy and cystoscopy." The publishers say, "It is not a rehash of other books, but is based entirely on the large personal experience of the author. It is a book of facts, not of theories, special attention has been given to the curability of gonorrhea, with a reference to it's influence in marriage and in the sexual neuroses." The author makes a special plea for more gentle and conservative methods of treatment of the disease.

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"SALVORSAN" OR "606," (Dioxy-Diamino-Arsenobenzol), It's Chemistry, Pharmacy and Therapeutics, by W. Harrison Martindale Ph. D., Marburg, F. C. S. and W. Wynn Westcott, M. B., Lond. D. P. H., (M. H.'s Coroner for North East London), is a book of 77 pages, published by Paul B. Hoeber, 69 East 59th St., New York, N. Y. 1911.

It is distributed in Wisconsin by the well-known firm of manufacturing chemists, Kremers-Urban Co., Milwaukee, Wis. It is a very complete presentation of the origin and use of this remedy in the treatment of Syphilis and deserves a careful study by those who desire to become fully acquainted with the best manner of using it.

CLINICAL COMMENTARIES deduced from the Morphology of the Human Body by Professor Achille De-Giovanni, Director of the general Medical Clinic, University of Padua, Italy, translated from the second Italian edition by John Joseph Eyre, M. R. C. P., L. R. C. S. I., D. P. H,, Cambridge, is published by Rebman Company, 1123 Broadway, N. Y. City. Price $4.50.

This is a finely bound book, octavo size, of over 425 pages, is a very scientific and fascinating volume. As an aid to more thorough methods of clinical diagnosis it demands and should have our attention and study.

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INEBRIETY. A Clinical Treatise on the Etiology, Symptomotology, Neurosis, Psychois and treatment and the Medico-Legal Relations by T. D. Crothers, M. D., Supt. Walnut Lodge Hospital, Hartford, Conn., Edior of the Journal of Inebriety, Author of Morphinism and Narcomania, Drug Habits and their treatment, etc., Recording Secy. of the American Medical Society for the study of Alcohol and other Narcotics, Member of the British Society for the study of Inebriety, etc., etc. The Harvey Publishing Co., Cincinnati, O.

It is a finely bound book, royal octavo in size with 360 pp. In the preface the author says, "The alcoholic question is positively one of the greatest medical and social science problems confronting the civilization of today." The familiarity of the author with the problem mentioned, can not be questioned, at least from the institutional standpoint, as he has been engaged in that field of work, continuously for the past thirty-six years, comemncing as Assistant Physician in the N. Y. State Inebriate Asylum in 1875, leaving there in 1878 to accept his present position as Supt. of Walnut Lodge Hospital, Hartford, Conn. He has also been Editor of the Journal of Inebriety since it was founded in 1876.

The author's conclusions are valuable and extremely helpful to anyone who desires to approach this important question from a strictly medical and scientific standpoint. It is in this way that it is treated in this book. A strong plea is made to have the Inebriate considered as a sick man instead of one who has voluntarily become vicious and prefers to be morally evil. The avowed purpose of the author is to group and study the phenomena of inebriety from the scientific point of view and show that it is not a moral disorder, but a distinct neurosis and psychosis, preventable and curable by the use of physical means and measures. It is certainly a very valuable addition to the "doctor's library" and indispensable to one who desires to have the latest information on this most important branch of every doctor's work.

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P. Blakiston's Son and Company have recently issued a Pocket Pronouncing Medical Dictionary, (the sixth edition), containing 34,000 words. It gives their pronunciation and a complete definition. It also contains a new dose list of drugs and their preparations, in both the English and metric system of weights and measures and many interesting and valuable tables of the arteries, nerves, muscles, bacteria, bacilli, micrococci, etc. It is beautifully bound in an excellent quality of flexible leather with gilt edges and is printed on very light weight paper, making it possible to easily carry it in the pocket, although it is a book of over 1000 pages.

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What other Christmas present costs so little and means so much as a subscription to The Youth's Companion—52 weeks for $1.75? It is a gift which benefits not only the one who receives it, but every member of the same household.

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The subscription price is now only $1.75, but on January 1, 1912, it will be advanced to $2.00.

The Youth's Companion, 144 Berkeley St., Boston, Mass.

New subscriptions received at this office.

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The value of heat as a therapeutic agent has been so conclusively proven that it will admit of no further argument.

The difference, however, between convective heat in contra-distinction to radiant heat is a subject in which the profession generally is interested.

Convective heat is particularly applicable in cases where radiant heat is not indicated and the reverse is quite true. Their differential thermic value is clearly set forth in the October issue of the Bloodless Phlebotomist along with an interesting paper by Dr. David MacIntyre, Sea."

In the same issue of the Phlebotomist, Dr. Edward Parrish of Brooklyn, presents his methods of treating Tic Douloureaux and Dr. Leverett of Yonkers, relates his experience in the successful handling of ivy poisoning cases, which in many instances are quite as intractable to handle as Tic Douloureaux.

In addition to these papers, much other interesting and instructive material is given, and it is worth while to write to The Denver Chemical Mfg. Co., New York, for a copy of the Bloodless Phlebotomist for October, which they will send upon request.

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Hand book of Suggestive Therapeutics, applied hypnotism and psychic science. A Manual of practical Psychotherapy, designed especially for the General Practitioner of Medicine and Surgery, by Henry S. Munro, M. D., Omaha, Neb. Third edition revised and enlarged. Published by the C. V. Mosby Company, St. Louis, Mo., (1911).

A careful perusal of this book proves it to be, what is claimed for it and every doctor is losing something that he cannot afford to do without, who does not avail himself of it's use, in his daily work.

It is not surprising that it has been necessary to publish this third edition, when one notes the exceptional practical value of the book and it's utility in helping to properly discharge the responsible duties of our profession, constantly encountered. We quote the following dedication of the book: "To the memory of My Mother whose beautiful example and most frequent suggestion, "Be sure that you are right and then go ahead," has given to my life whatever dynamic quality characterizes this book."

♣ ♣ ♣

Clinical observations demonstrate Cactina Pillets to be a mild tonic stimulant to the heart, acting both on the mechanism and directly upon the heart muscle. It's continued use will promote cardiac nutrition and overcome atony of the heart muscle. And in this assistance it affords the heart and circulation there is absolutely no danger of creating untoward symptoms or annoyance to the patient.

Wisconsin Medical Recorder

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TYPHIOD BACILLUS

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

The Bacillus Typhosus was discovered by Eberth in 1880, during which year it was also independently observed by Koch. Both of these observers obtained it from the spleen and intestinal ulcerations of persons dead of typhoid fever. It was, however, four years later before Gaffky succeeded in obtaining it in pure culture. It was he who first described its principal biological features, so far as the limited facilities of the day permitted. He found considerable difficulty in separating this bacillus from the other members of the colon group, as did observers who followed him. Not until our knowledge of the specific antibodies increased, was it possible to positively identify the typhoid bacillus.

It was really Pfeiffer who first discovered the phenomenon which is now known by the name of agglutination. He found that by injecting the cholera spirillum into animals subcutaneously, specific substances of a protective nature were formed in the blood of the treated animals. Among other experiments of his was the so-called "Pfeiffer Phenomenon," where he injected into the peritoneal cavity of a guinea pig a mixture of cholera germs from a fresh culture and some of the serum of an animal which had been immunized by injections of the spirillum. In all cases it was found that on withdrawing small quantities of the liquid from time to time, that the germs first lost their motility, and finally clumped together and died. In control animals, who were injected with cultures plus serum from a normal non-immunized animal, this did not happen. The bacteria remained lively and vigorous, and the animal soon died, while those with immune serum remained unaffected.

This was in 1894-5 and in March 1896, Pfeiffer and Kolle published an article on the differential diagnosis of typhoid fever by using immune serum. Gruber and Durham denied the specificity of the reaction, while admitting its usefulness.

It remained for Widal, in June, 1896, to confirm the reaction, and to devise sufficiently simple methods of applying it for clinical purposes. And although the Widal reaction, as it has been named, by no means fulfilled the extravagant expectations of that time, it has proved of great assistance in diagnosing obscure cases of the disease, and is the recognized test for differentiating the typhoid bacillus from others resembling it morphologically and culturally.

Credit should be given to Wyatt Johnson of Montreal for first suggesting the use of dried blood instead of serum for the reaction. This made its use possible in municipal laboratories, the first one to introduce it being that of New York City, in October, 1896. It is now one of the recognized features of almost all municipal health laboratories.

Another improvement recently

brought out consists in the use of dead instead of living cultures. The advantage is obvious; the only draw-back being that the reaction is somewhat slower than with living bacilli. Otherwise the dead bacilli respond well to the agglutination test. For clinical purposes the use of dried blood with dead cultures is very practical. Of course, where great scientific accuracy is required, it is still advisable to use serum and living cultures.

As far as results go, during the first week of the disease a positive reaction is obtained in 20% of the cases; in the second week, 60%; the third week 80% and the fourth week 90%. In cases lasting two months, reactions were obtained in 75% after that time. The reaction persists for a number of months after recovery (3 to 12 months). Cases are on record of slight reactions fifteen years after this recovery, but these are doubtful.

A valuable aid in the diagnosis of typhoid fever has lately been introduced in the use of blood cultures. In many cases bacilli occur in the blood early in the disease, continuing to be present until the height of the fever, when they decrease. This decrease is due to the formation of antibodies.

During the first week, before the Widal reaction becomes positive enough to be useful, the blood culture offers the best means of diagnosis, as sufficient antibodies are not yet present to produce agglutination. During the second week, both agglutination tests and cultures should be made, as either may give positive results during that time. After the second week, the blood culture is useless, and the Widal test alone should be depended upon; for the antibodies formed by that time will inhibit the cultivation of the bacilli.

However, in all cases clinically typhoid, if the Widal proves negative, a blood culture should be made, and vice versa, as atypical behavior in this respect occurs from time to time.

An ocular typhoid reaction has been devised by Chantemesse, similar to that in tuberculosis. It needs further research before being generally adapted.

As to immunity after the disease, it seems to last for years. The presence of antibodies is proved by the persistence of the Widal reaction, and the failure of individuals to contract the disease. About 25% of all the cases, however, have a second attack, which is usually mild. Animals have been successfully immunized by injecting either living or dead bacilli in increasing doses, in the usual manner. The serum of the animals proved strongly bactericidal, but only very slightly antitoxic, that is, it would agglutinate and destroy the bacilli when brought into contact with them, either within the animal or without. But it would not cure the disease already existing in man or another animal, neither would it produce passive immunity for prophylactic purposes.

From this it seems evident that the toxin secreted by this organism is an endotoxin, and not extracellular. Wright has used killed bacilli in a vaccine, with fair results, in India and Africa. All told 8600 people exposed to typhoid were treated with the vaccine; only 2.25% took the disease, with a mortality of 12%. Of 41,000 unvaccinated individuals, 5.75% took the disease, with a mortality of 26%.

Among the German troops in South Africa favorable results have been obtained by vaccination with killed agar cultures. In 424 cases of typhoid, of which 324 had not been vaccinated and 100 had been, the mortality was 7 per cent, in these cases, as against 11.9 per cent in the unprotected. A much milder course of the disease was also noted in those who had been vaccinated.

According to Russell, in the Boston Medical and Surgical Journal, January 5, 1911, there have been 14,000 men vaccinated against typhoid in the United States army since 1904, and to date there have been reported only six cases

of typhoid with one death. Among those not inoculated, during the same time, there have been 418 cases with 32 deaths.

This makes a rate per 1000 among the vaccinated of 0.4 while among the unvaccinated it is 6, or 15 times as high. Only 1-6 of the force has been immunized as yet. The conclusions are obvious, and the use of vaccines, not only for military purposes, but in epidemics, would seem clearly indicated.

Results obtained by vaccination during the disease, however, are practically nil as to curative effect. Relapses seemed, however, to be fewer.

A peculiar feature of the typhoid endotoxin which has been observed is that in a great many cases where the glandular structures of the alimentary tract failed to perform their function properly this condition was corrected by an attack of typhoid fever. A large number of these cases have been observed by the writer, in which a general vague inefficiency of the internal glands was replaced by perfect function after recovery from typhoid.

This would suggest that possibly some of these cases might be benefited by inoculation with killed cultures. Although this may seem somewhat of a radical suggestion, there is no doubt in our mind that it is only a question of years before drug therapy will give way to serum therapy in all diseases, even those not of distinctly infectious origin.

CANCER of the RECTUM

CHARLES J. DRUECK, M. D.
Chicago

In the rectum cancer is the most fatal and one of the most painful diseases we have to meet. Its exact cause here, as elsewhere in the body is obscure, and the theories advanced are so much at variance that the writer is not prepared to advocate any one opinion. Statisticians and pathologists vary considerably in their reports. Carcinoma of the large intestine is a common disease, but the small bowel is rarely the primary seat. The intestine contributes about 95 per cent of all diseases of cancer, and of these the rectum claims 80 per cent and the colon 15 per cent.

Cancer in general is much more common now than formerly, but whether this increase is due to our modern living or is only apparent because of better diagnosis and the more careful collection of cases is a matter to be determined. Heredity seems to be an element, because cancer is often found in several members of the same family although rarely in the parent or grand parent of the patient, and if the branches are followed out, some form of cancer will be found in nearly every instance. It is my object to give the reader some idea of the freqeuncy and different forms in which it may be found in and about the rectum.

Cancer of the rectum, like cancer elsewhere, is most frequently a disease of middle age, although many writers have reported cases in individuals under twenty years of age. Generally speaking, cancer appears at an earlier age in the rectum than elsewhere in the system. Allingham mentions seeing instances as early as thirteen years. In young subjects the disease seems especially virulent and terminates in two or three years, while in the aged the progress is slower, the patient may live six or eight years, probably because the vital forces or lymphatic circulation is sluggish. Sex has little effect. Records differ as to the proportion in the sexes, and while women are more disposed to cancers in general, the same cannot be said when the disease is situated in the rectum. The purely local stage of the disease, if there is any, is very short,

and in practically all cases, it has involved surrounding structures and often become constitutional by the time the symptoms have developed sufficiently to bring the patient to the doctor.

As regards the location of the disease, it is most frequently found about three to five inches within the rectum, the lower limit being about on a level with the internal sphincter. Next in frequency at the anus—Williams estimates three cases at the anus to forty within the rectum—and least frequently the growth is situated in the upper rectum, or sigmoid flexure. The region extending up from the internal sphincter is not only the most frequent site, but also the most fatal, for at this point the disease more rapidly runs its course and is more liable to accidents on account of increased anatomical liability to obstruction.

VARIETIES.

At the anus, epithelioma is nearly always the rule, and is the same form as is so commonly seen on the lip. It begins as a hard, warty nodule at the anus and not within the rectum and makes slow progress, for it does not ulcerate until late in its existence, nor does it spread up into the rectum very far, but extends into the true skin. Microscopically, it contains the characteristic nests of squamous epithelium.

Within the rectum the cancers belong to the columnar cell growths and resemble the histological structures of the mucous membrane from which they grow. They are adenocarcinomas and closely resemble the benign adenoma; but the gladular hyperplasia of the simple adenoma is restricted to the mucous membrane and grows up into the lumen of the bowel, while the carcinoma infiltrates the submucous tissues and spreads out in all directions. Microscopically, the resemblance between the groups of cancer cells and the tubules of the normal gland are so great that the tumor may be mistaken for a benign adenoma. But in the margin of the growth quite atypical cells will be found. These cancers usually arise above the sphincter and are easily differentiated from the squamous variety. Early in its existence the growth may appear pedunculated, and clinically it is impossible to distinguish from simple adenoma until the tendency toward a broad infiltrating base shows the malignancy. Later ulceration occurs and inflammatory changes are superimposed; all being aggravated by the irritation of the feces. The cancer varies somewhat in gross and microscopical appearance and also in clinical history, according, to the histological structure which predominates in the make-up of the growth. Thus, although the same elements are used, we find encephaloid, scirrhus or melanotic cancer.

The encephaloid cancer arises primarily in the crypts of Lieberkuhn and is enclosed in a connective tissue capsule which sends trabeculae into the mass, dividing it into lobules. The cells are large, round and nucleated. It is often vascular with large veins coursing through it and on its surface. In the interior, extravasations of blood gives the tumor a soft, mushy feel and it resembles brain tissues, hence its name, encephaloid, while in other instances it is spongy and shreddy, like placenta.

Later a large amount of cancer juice containing cells exudes on pressure, and if dropped into water it easily diffuses, giving the whole a milky appearance. Paget considers this a valuable rough test in diagnosis. If seen early the cancer is movable in the subjacent tissues, but when seen later it is soft and friable upon an indurated base. The cancers grow rapidly and may even fill the whole pelvis, involve surrounding tissues and new growths develop in neighboring organs. The glands are involved early and if the tumor is removed it soon recurs, although considerable temporary relief is obtained by its removal and the cachexia disappears for a time.

Digital examination is deceptive because of the extreme softness of the tumor and the apparent fluctuation imparted, but a little fluid aspirated will clear the doubt by showing cancer cells and blood microscopically.

As the deeper structures degenerate they become cystic with a mucoid, glue like, translucent yellow substance, which distends the tissues and the growth is called alveolar or colloid cancer.

Scirrhus or hard cancer is the variety most frequently met with in the rectum. It arises in the submucous connective tissue as a hard nodule beneath the normal mucous membrane and radiates out in various directions, but principally longitudinally up and down the rectum. These new extensions can sometimes be felt as hard bands or processes, claws, from which cancer receives its name. This form of cancer is said to be more frequently on the anterior wall of the rectum near the prostate and infiltrates all sourrounding tissues and eventually involves the bladder. The diagnosis of this form is necessary to differentiate it from simple fibrous stricture of the bowel. Kelsey reports a case of dysenteric diarrhea which resulted in a stricture and presented a clinical picture of scirrhus cancer, but had existed eighteen years.

In the scirrhus variety the stroma is abundant and the alveoli narrow with the cancer cells frequently small. Fatty degeneration of the cells often occurs and the stroma remains to contract. Secondary metastatic growths occur late and there is hope of a cure by early and thorough excision.

Melanotic cancer is placed among the carcinomas by some pathologists and by others among the sarcomas. It is soft and medulatted and has increased development of pigment. It is rapid and malignant in growth and often becomes generalized. Only ten cases have been reported and only six had complete histories. Five were in men and one in a woman. The ages varied from forty-five to sixty-four. Microscopical examinations were made in five cases and these were all classed as sarcomas. The symptomatology was the same as any rectal cancer with the exception of one case where the stools were black, and also after an examination the finger was blackened.

Ossification of either sarcoma or carcinoma may occur at any time, but only one case has been reported of a true bone cancer.

Too much reliance must not be placed in the patient's age nor in the early local appearance, but a thorough exaamination made in every instance and if any doubt remains a bit removed and examined microscopically.

SYMPTOMS.

Malignant growths in the rectum are of several varieties, some of which have characteristic appearances and are easily diagnosed, while others are difficult of differentiation. The benign tumors as a class are soft, have pedicles, project into the lumen of the bowel, are movable, and do not invade surrounding tissues, while the malignant growths are more or less solid or hard, and spread out between the muscular and mucous coats of the rectum in such a way that they may invade several square inches of the bowel and yet project very little if at all into the rectum.

(To be Continued.)

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As we go to press the annual meeting of the Society for the prevention of such appalling mortality among the infants of this country is to be held in Chicago, commencing on Nov. 13th. We shall try to be present and to have a partial review of the work accomplished ready for our readers, in the December number of the journal. It is a subject of the greatest importance and the zeal with which it is pursued now, ought to be in direct proportion to the great length of time that it has been neglected.

DREAMS AND DREAMERS

W. STUART LEECH, M. D.
Roseau, Minn.

(Continued from Page 251 October Recorder)

Dreams are Reflex in that they depend upon some irritation of a part of the nervous system. They are frequently the dreams of association or one thought calling upon another according to set laws of association. A multitude of business leaves a stir in the brain. Heavy diet, injuries, distress, sickness, cause reflex dreams which, as a rule, take place in the forepart of the night.

Dreams are Telepathic in that they are the readings through an unknown medium of the actions or doings of a second person who may be at a great distance from the dreamer.

Dreams are Hypnotic, and are akin to but unlike the telepathic. This class comes at the interval between the wakeful state and unconsciousness. They are often prophetic.

Dreams are often Prophetic in that the subconscious or subliminal self takes up for consideration some subject matter which concerns the actor, weighs all the pros, cons, and circumstances, sees the inevitable end and wisely presents the same to the conscious mind in a symbolical figure. Prophetic dreams are invariably presented in figurative language. It may be because symbols contain wisdom and a figure is often more impressive than the reality.

Dreams are Superhuman when no complicated chain of events could possibly be connected and the ultimate results of an unexpected happening foretold or take place as the announcement of the birth of a child to a mother a year before the actual event.

I have collected and made notations of several hundred dreams falling under these classifications. The various facts and circumstances have been carefully noted, and in the few cases related in this manuscript there is not a single perversion or coloring.

Case A. Just before dawn dreamed that he saw a meteor fall from the north in a southeasterly direction to a particular known hill. It was impressive.

Fire, as we know from all sacred and secular literature, is a symbol of purification, a change; and as it descended to the earth in this instance it denoted a human being returning to the earth. Coming from the sky symbolized the spiritual connection of the soul with matter.

Facts of A—' case. A— was a young physician who had a very ill patient in the locality where the meteor fell. The patient was a girl about nine years of age and had been ill several weeks. She died the day following the fall of the meteor.

Case B. Was a promising physician who dreamed near dawn that his father was in his arms and was sliding head downwards from his grasp. The face of his father appeared rather pale but the dream made such an impression on the dreamer that it worried him no little the following day. Could it be, he questioned himself, that his father was going to be placed in his professional care and that he should let him slip from him to the earth, meaning a return to the earth or dissolution.

Facts in B—' case. His father was leading an active outdoor life although seventy odd years of age and fifteen hundred miles distant from the dreaming son. Two days after the dream the son received a telegram from his brother announcing the illness of the father with typhoid fever. The third day a second telegram was received calling him to his father's bedside. He delayed going a day for fear the attending physicians would insist and force him to take the responsibility of the case. On the fifth day of the illness and a few hours before the son had reached the home of the father he received intelligence of the father having slipped from

his professional brothers hands. This was probably a subconscious or telepathic communication of the father's second or third person with that of the son's. The second self is more apt to convey in symbols while the third pertains more to prophecy.

Case C. She was a young lady who made her home with her parents in the mountains of old Virginia. She was the picture of good health and free from any cares. At the breakfast table the morning of the dream she related to me her dream in detail which was that the large mountain (El. 4000) in the rear of the house burst into a fearful volcanic rage and in the dream she became frightened to think that she and her home were in jeopardy. Fire is symbolical of change and as it was in the most prominent peak of the surrounding land it meant to her a change of abode at an early date.

Facts of C—' case. A few months later the home was broken up and C—'s future abode was made in Florida. She perhaps had heard her father and mother considering the matter and her sublimnal self weighed the points to a conclusion and presented it to her symbolically before her parents had made a decision.

We have the records of many fire and volcano cases and the figure in each is invariably along the same lines of prophecy.

Case E. Was a young man in active business, enjoying good health and contentment. During the latter part of May he dreamed of the American flag and that he had a new hat and coat. A few days later while cogitating the meaning of his previous dream he received a written communication from a nearby town requesting him to deliver a fourth of July oration. The invitation was accepted and a speech delivered according to schedule. We would naturally symbolize our flag with patriotism and the coat and hat with honors; all of which proved to be true in E—s' case.

Case F. He was the mayor of a small city and during the month of June dreamed that he had on his hat and a crown of serpents was around the hat band. We would naturally say the hat meant honor and the serpents enemies or danger which was the interpretation put upon it.

Facts in F—s' case. The municipality of which F— was mayor was considering the advisability of celebrating the fourth of July and it was finally left to F—'s decision. After the dream which made the decision, for with this light F— considered the case not forgetting that he had recently put all of the saloons, grafters, and thugs out of commission and that his enemies would seize the opportunity to place an ignominous wreath of glory on him as mayor by secretly introducing liquor and gambling. F— stated privately that he desired no crown of serpents. This dream changed the course of ten thousand people.

Case G. G— was a man of active business and had been reflecting and cogitating in his mind late one afternoon alone in his office concerning the existence of a personal devil and after praying for more light on the subject retired. He states in his own words: "In my dream I first beheld several men kneeling in the dark preparing a plot, next I beheld a fair woman with head resting upon a pillow, next a frightened child near the woman. All of these in succession before my eyes. I next found myself in a large room, in one part of the room hung portiere curtains and as I glanced at them I saw the eye of the devil looking directly at me. That eye sparkled like the most brilliant black diamond. It was satanic to a finish. It seemed to say 'I want you.' Each one of my limbs felt as though it weighed five hundred pounds, yet in this dream I trembled at all of this, and a chill passed over me

lest that curtain be drawn entirely back and the horrors of the infernal regions brought to view."

Facts in G—' case. He was a strong, healthy man engaged in ordinary active business pursuits. He was married, a church member, and a deep reader. And as further related by him he states that on the following evening he was invited to the house of a family (who were strangers to him) to attend to some business which was in line with his regular vocation. The business motive proved to be only a pretext, and instead he found a smooth piece of fair femininity and an only child left alone in the house. He was ushered into a scented bed room and every inducement offered but the dream of the previous evening was remembered and taken as a warning.

Case L. Was no other than myself. As usual I had been looking after my usual duties, and feeling fairly well with the exception of a slight rheumatic stiffness of the joints. On the morning of the 13th of September just before dawn I dreamed that I was climbing a steep roof with my hands holding on the edges of the two sides of the roof. Just as I neared the top I slipped although still holding on to the roof, I fainted or rather felt a sickening feeling. Now I wakened up and realized that there was imminent danger of my being hurt or dying as about ten years previously I had a dream akin to this just before I lost my only son. I dared not inform my wife as it might throw her into a nervous condition. But that dream was prophetic of some evil, I knew. I had an automobile ride of 14 miles to make that morning. This trip was postponed for various reasons. I am not superstitious but felt that I was dealing with a fact. I did not relate the dream to my wife on that morning but before the breakfast she remarked that she felt something dreadful was going to happen during the day. This made me conceal the secret that much more. I went on to my office and as I was not expecting any patients until the afternoon I called on the barber for a shave and then began to make myself busy rearranging my office pictures and furniture wondering all the time if I had done right by postponing the country trip until the afternoon. At a quarter to twelve I was testing my surgical chair to see if it was in working shape and safe for the great number of patients I now had on hand. Placing it in a horizontal position and thinking that all of the thumb screws were tight I jumped on it to see if it was safe and solid. Quick as a flash I went head first to the floor striking the base of my skull and shoulder and sustaining a broken collar bone which was followed by six days of torture from slight concussion of the brain. As I arose from the floor I knew my clavicle was broken but was not quite sure about my skull. Now I remembered my dream of the morning but there had been no faint feeling. I went up to one of the other physician's offices to have my shoulder attended to and while he was adjusting the fractured end of the bones I had the two slight fainting attacks just as it occurred in the dream, not losing consciousness in either case but well noted by my fellow physician.

Neither I nor any other living person knew beforehand that I was to spend the morning and get hurt in my office. This was the first broken bone I ever had. Some intelligence in some part of this broad universe knew beforehand that I was to receive an injury and took the trouble to notify me seven hours or more before the happening.

In F—'s and G—'s cases the dreams were so impressive that they interfered with the ordinary chain of natural events. Both cases contain more or less prophecy and may be partly explained by telepathy. We may note further that in G—'s dream as in all recorded dreams and visions for thou-

sands of years the devil is represented as a personal being. The subliminal self (if not inspired) can use no stronger language or figure to portray his satanic majesty than the symbol of the actual personality.

AN ALTERATIVE

By GEO. L. SERVOSS, M. D.
Fallon, Nevada

In the administration of an alterative the primary thing to consider is, that such an agent be other than irritant to the stomach. Most of the iodine products are irritant, and more especially if exhibited over any considerable length of time. This is very true of potassium iodide, the hitherto most prominent form of administration of iodine. Others of the stable salts of iodine are equally irritating, if employed over any considerable length of time. Many of the stable salts likewise establish iodism very early, much too early in some cases. With the establishment of gastric irritation or early iodism, it is necessary that the drug be withdrawn for the time being and in consequence its desirable continued use is interfered with to a greater or less extent. In other instances the effect of the drug does not become apparent as early as is desirable, and not infreqeuntly does it happen there has been so much gastric irritation as to render its farther exhibition objectionable.

There is one form of iodine combination which overcomes all of the undesirable and objectionable features of the ordinary stable salts of iodine. This is known as iodized lime. It is not to be confounded with the stable salt, calcium iodide, as it is not a stable chemical compound, but rather a mechanical mixture of lime and iron, in which there is present 15 per cent of free and nascent iodine with 85 per cent of lime salts, chiefly the hydrate and carbonate. These are loosely mixed, and under such conditions that the component parts remain in their original forms, namely, iodine and lime. When subjected to the action of gastric fluids, the iodine content is liberated and taken into the general system as nascent iodine, and the lime content is absorbed as lime, and nothing else. Strange as it may seem, it is possible to exhibit this mixture over a very considerable length of time without any gastric irritation, whatsoever. In many cases I have noted the physiologic effect long before any irritation of the stomach was in the least apparent.

In addition to the alterative effect of the iodine content, we have the advantage of the lime content which is of great value in many of the conditions in which there may be a loss of lime salts, with incident tissue waste. Especially is this mixture indicated in syphilis and tuberculosis, in both of which conditions there is a noticeable loss of lime salts, and more prominently where there is bone involvement.

As this is a loose mixture, it is possible, through solution in hot water, to employ either of the component portions of the agent. When such solution is made, the major portion of the iodine content is disolved, while the insoluble lime salts are thrown down as a precipitate. If a preponderance of iodine is desirable, only the supernatant fluid is employed, while if it is desirable that the lime content be employed in addition, agitation of the fluid allows of the use of both contents.

The iodine mixture was originally discovered to be a valuable remedy in the treatment of croup, and is employed to a very considerable extent at this time in that direction, but as experiments were made it was found that the mixture was applicable in the majority of instances in which the stable iodine salts had been employed and indicated

and toay it is being used very extensively where ever there is an indication for the internal use of iodine.

In the treatment of croup, iodized calcium is exhibited in 1-3 grain doses, preferably in hot water, every five to fifteen minutes, until the acute symptoms have been overcome, after which the doses are given at less frequent intervals, of from one-half to two hours, to sustain the initial effect. Reports regarding the use of this agent have been made by practicians from every part of the country and it is the general concensus of opinion that this is the one dependable remedy in the treatment of croup.

In all catarrhal conditions of the air passages, especially those in which there is a muco-purulent discharge, the exhibition of 1-3 grain hourly will, within a very short time, change the character of the discharge to one mucus in character. In consequence of this iodized lime is invariably indicated in coryza, pharyngitis, laryngitis and in fact all of the inflammatory affections of the upper air passages, as well as in the catarrhal involvements of the bronchi.

As a reconstructive alterative, we find iodized lime of considerable value in tuberculosis. Not only does it act in this manner, but in addition, in some manner seems to control the cough, thus overcoming the necessity for sedatives. It has been found that two or three grain doses, given at hourly intervals, during the earlier evening, controls the cough for a number of hours, frequently all night. If the patient is awakened during the morning hours by the cough, a repetition of the above mentioned dose, at like intervals, will promptly bring relief and allow of continued sleep. As a rule, however, if the agent is exhibited in 1-3 grain doses, at hourly or two hourly intervals, continuously, it is not necessary to employ the larger dosage at night. This mode of action is not known absolutely and the agent is employed empirically in such cases, experience rather than known drug action governing. The lime content acts to rebuild the tissues, both soft and bony and to renew vitality. Only recently have I had an opportunity to note this is a case of tubercular retrorectal abscess with subsequent fistula. In this case, until after the iodized lime had been administered for several days, there was repeated breaking down of the abscess walls with the formation of later pockets. With the establishment of the effect of the drug, there was renewed vitality of the part involved, and instead of a purulent discharge the fluids excreted became rapidly serous and then sero-sanguinous. In addition to this, the general conditions rapidly improved. While it is not probable that this agent will act as a cure, per se, in such cases, it undoubtedly acts to tone up the tissues and assist in the establishment of a more nearly normal metamorphosis, and the iodine content undoubtedly has some inhibitive effect upon the infective agent, eitologically active in the causation of the disease. In tubercular bone involvement, iodized lime is undoubtedly indicated, in that the lime content aids in the reconstructive action.

In the treatment of syphilis, iodized lime has much the same action as any other iodine compounds, that of an alterative character. As in tuberculosis, when there is tissue construction, the lime content aids in reconstrucion. The fact that this agent is not a gastric irritant, even though employed over a considerable period, recommends its employment in syphilis. It should be pushed to full physiologic effect, and such effect maintained, and never employed in a half-hearted manner.

From the foregoing it will be seen that iodized lime, is a valuable agent and one of innumerable applications. It overcomes the major portion of the objections raised regarding iodine compounds in general. In the exhibition of

this drug it should be remembered that small and frequently repeated doses, not infreqeuntly are of more avail than are those of full physiologic size and in consequence of this it should be exhibited in such manner. As soon as the effect, remedial, or physiologic, if desired, is established, the dosage should remain as in the beginning, but the interval extended, with the idea in mind at all times to maintain the desired effect.

RADIUM AND RADIO-ACTIVITY

HERBERT ROBARTS, M. D., M. E.
St. Louis, Mo.

Radium plays a role in therapeutics which can not be ignored by learned persons. Physicians should not fail to use radium when proper cases apply for treatment.

We may as properly deny a malarial patient the benefits of an antimalarial as to deny a lupus or rodent patient the benefits of radium.

With radium we do not have to guess. Its therapy is almost exact. Not only is its dosage known, but we have something of its secondary effect after taking. Clinical and experimental work carried on from the date of the discovery of radium, both at home and abroad, has furnished indubitable evidence. Physicians using my radium preparations further subscribe to this statement.

If you have a case of lupus and it will not heal or a rodent ulcer with the same disappointment, use radium. I do not mean that you should send $10, $50, or $100 and get from "somebody" some radium. Of what signifiance is the radium to you? It means much ill or it means nothing. I must digress here a little.

When you purchase radium of 10,000 radio-activity, on what basis of calculation is this rated? If the rating is well-known to you of what advantage is it? You know nothing of its ratio as applied to diseases. This random therapy quieted radium.

Supose you had recently learned, and for the first time, of the existence of an arsenious acid. You learned that it had been used as an antimalarial. The whole subject is obscure. But little is known of it, and it is fogged with a mysterious physics. Its corrosive activity is rated from gold taken as a unit. According to its absence from residue, it is high or low in activity. It is sold in any activity to 1,000,000.

Now, what strength or activity would you send for, if you wanted to treat a case of paludal fever? Possibly the patient having malaria is a child. Is the dose and corrosive activity the same for all ages and conditions? The fact is you want a remedy the dose of which is well-known. You want to know for what the particular doses are to be used.

With the knowledge of radio-activity on a par with the same information on corrosive activity, and nothing much more, what respect could you have for such an agent? But the truth is, as arsenic is known today by many, so radium is well known by the few. I shall do what I can to help inform all medical men.

Radium is now put up in exact dosage. Its radio-activity is known, it will discharge the electroscope, it ionizes the air, it affects the sensitive plates, it confers radio-therapy, it eliminates micro-organisms and toxins, it strengthens the body and causes tissue repairs.

Now we will take up the case of lupus and rodent ulcer. We are not much interested in the degree or extension of this disease unless bone is involved.

Local treatment consists of the local use of naked radium. Prepare the sore by cleansing it with free use of com-

mon yellow washing soap. You can prepare the radium in this manner: From a fine grained resilient eye sponge shave some very thin sheets. These sheets are to be soaked in thin solution of gum acacia. They are now to be squeezed quite dry and pressed firmly against naked radium which has been dusted on a glass plate. These sheets are now packed in the sore two or three thicknesses. With a little gauze and narrow strip of Z. O. plaster, the application is retained in position about 60 hours.

At this time remove all dressings and treat the sore as a benign one. When the dressing is removed the sore will present a surface of healthy granulations. Sometimes the case requires two or three applications. There is not the slightest pain in any stage of the treatment.

There is a constitutional treatment for patients with malignant sores. I refer to epithelioma proper and the rodent type. The fluids of the body fluoresced at first suggested and practiced by Dr. William J. Morton, of New York City. The next step is to cause a reversal of the body habit. We are going to prevent the return of cancer. We removed it by the easiest, kindest and most economical method.

A cancerous patient is not a normal type of man. He may without volitional assistance revert to the type of normal man. This seldom occurs and, therefore, he dies. We have learned how to do something. The secretions of a cancerous patient's stomach is alkaline while in health it was acid. The intestinal secretions have been changed from alkaline to acid. In consequence of these altered secretions ptomaines and toxins are permitted in the intestinal tract. The blood stream receives these poisons and the fibrin and serum undergoes a fermentative process. High animal life absorbs oxygen and discharges carbonic acid. Lowly animal life absorbs carbonic acid and gives off oxygen. A cancer belongs to this type. This trait is know to obtain in the vegetable world.

Cancers are a sort of vent to a human brewery vat. Cancers would probably not kill were it not for the malignin secreted by them. This malignin is poison to normal cells and therefore normal tissue erodes away.

A cancer is a multiplying cell organism possessing no nerves or blood vessels. Cancers never change to the normal type in man. Their cells multiply. The cells of normal man proliferate.

Therefore, by proliferation the normal type in man. Their cells multiply. not live of itself, neither can any multiplying cell life. When you deal with multiplying cells wheresoever found, you are dealing with tissue foreign to the body.

It is clear from what has been said that the simple removal of cancer is not necessarily its cure.

Cancers reveal themselves at the point of weakest cell life, as for instance an injured place. Scar tissue is always weaker than normal tissue. When a cancer is cut out whatever union is found is scar tissue. Here is where cancer returns. Cancers, therefore, should not be cut out. Radium does not leave scar tissue. Radium confers to tissue, radio-activity, and the normal cells take on greater resisting power. The knife depletes and weakens cell life while radium infuses renewed strength.

Additional to constitutional fluorescence by internal uses of radium, attention must be given to diet. The ingesta should approach diebetic food for a period of at least one year. The blood must be oxydized.

Radium is used in aluminum sounds for the treatment of gleet and affections of the bladder and prostate. It is used in aluminum dilators for the treatment of diseases of the rectum. It is made in aluminum spheres for the treatment

of leucorrhoea and diseases of the os. It is made up in glycerine ointments for the treatment of wide and extensive skin diseases. It is used in high radioactivity in aluminum therapeutic tubes for the deeper tracts or cavities of the body.

Radium can be depended on for a wide range of action. With a little ingenuity on the part of the operator, coupled with common sense, radium will not disappoint any doctor. But in conclusion I will again refer to the necessity of using radium that has been gauged to its action on the tissues under discussion.

QUERIES

Answers are solicted to the following questions and suggestion for treatment in the disease conditions mentioned:

1. Why does the young doctor lose his patients? (This, ye editor believes refers to, why do they leave him and seek another physician and not to the death of the patient.)

2. What treatment will be effective in a, Ulcers of the leg? b, Ordinary Colds? c, Chronic Indigestion? d, Chronic Rheumatism?

3. How can physicians secure better pay for their services.

(Charge full rate for every service, including telephone and all other advice and make a definite and desperate if need be, effort to collect regularly and frequently, is our suggestion.) S.

4. How shall we treat minor ailments in the office? Suggestions for Minor Surgical cases in the office?

(We advise taking the attitude that few ailments are of so-called "minor" importance to the one seeking advice and that they should be given very careful attention, for this reason and because, ailments that appear trivial, at first, sometimes prove to be more serious later, than was expected.

A very painstaking care of minor surgical cases is never regretted, for reasons mentioned above and because it avoids criticism, if recovery is not prompt and particularly if, for this reason, the case is referred to some other physician, who may ask what you did in the first instance, in fact will be almost sure to do so, and may be so unethical as to freely criticise you for neglecting some of the simpler aseptic precautions, if you did not use them. Also, to give this care makes a proper-sized fee seem more reasonable to the patient and it is more willingly paid.) S.

Treatment in detail for definite ailments and injuries should be given by our readers for publication in the December number.

Dr. Wiley's complete vindication of the charges that were brought against him, which it is generally believed were "inspired" by those who have been violating the pure food law and the recent changes in his department, whereby his villifiers have been transferred to other departments, as in the case of Solicitor McCabe, or given an indefinite vacation, as befel Doctor Dunlap, while not as gratifying to his friends as more drastic treatment for his enemies would have been, is at least a partial victory in the triumph of the cause of the people over the "Interests."

If you do not agree with any opinions expressed by those who write for our journal, do not hesitate to say so and we would advise all, not to advance any radical opinions, unless they are willing to have them discussed and criticised freely.

ELECTRO THERAPEUTICS

H. C. BENNETT, M. D
Lima, Ohio

THE VALUE OF X-RAYS.

Dr. Claudius D. Bell in a recent article gives an excellent resume of the value of X-rays and states that the unique results following the introduction of Roentgen ray energy as a diagnostic and therapeutic agent, led to its universal adoption by physicians, many of whom had no conception of the nature of its energy.

When, however, diastrous results became common among patients and operators alike, in its therapeutic use, and particularly when these led to fatalities, a general fear was engendered which retarded the growth of X-ray therapy. Although considerable advancement has been made, as regards to dosage and general treatment, too little consideration has been given to its physiological and therapeutic properties. All efforts in acquainting oneself in the latter direction, will tend to settle many of the X-ray mysteries, explain the radically different results obtained; dispel the present public fear of X-ray treatment and place Roentgen ray therapy on a more scientific basis.

Radiant energy, just as chemical, mechanical, electrical, and heat energy, has four distinct therapeutic properties—as a sedative, stimulant, irritant, and escharotic. While most mistakes can be summed up in one word "overdose" recent experimentation shows that this was the natural and unavoidable consequence following the universal custom of administering the rays continuously. Although the primary action of a continuous exposure is that of a stimulant, in the absence of both subjective and objective perceptibility, it passes to that of an irritant and finally to that of an escharotic. Even in the hands of cautious and skilled operators, regenerative influences are short lived, and when unskilfully handled the treatment generally results in degenerative tissue changes.

IN THERAPEUTICS.

The rays are selective in their action. Their effect upon the healthy skin, in correct application is limited to the increase of the pigment in the deeper layers. In pathological conditions the rays lead to thrombosis of the smaller capillaries; to degeneration of the abnormal cells in the endothelium of the blood vessels, and to the gradual diminution of the diseased tissues. by interfering with their nutrition.

The advantages of X-rays are manifold. In the first place, they are especially promising in the cases of some otherwise incurable diseases, and of very disfiguring skin affections, while their application in these cases is accompanied with no pain and practically no discomfort to the patient.

Among some of the other diseases the most favorably affected by the rays, is sycosis, both simple and parasitic. Some writers say that not a single case of this affection has been reported that has not been cured or at least markedly improved by these rays. Such conditions as folliculitis, acne vulgaris, favus, tricophytosis, lypartrichosis, eczema, lupus, rodent ulcer, and superficial malignant tumors are all, in a measure, open to the influence of the rays.

Still more important results are obtained in the treatment of blood diseases such as leukemia and in the obscure group gathered under the name "pseudo"—leukemia which, though very obstinate under many other treatments, shows marked improvement when the X-rays are used. Although final cures have not been obtained in many of these conditions by any means at our command, the X-rays have offered relief when nothing else would.

MEDICO-LEGAL ASPECT.

The legal profession now look upon the X-ray operator as one of the most important expert witnesses at court, presenting as he does his radiograph,

the mute but unquestionable proof of the case in question, to the jury. Absolutely no knowledge of medicine is needed, for there is the tangible evidence before their very eyes, the gap; the displacement; or the splinters of a fractured bone, and again the malposition of an improperly treated case. Bullets and all foreign bodies especially metals, are easily recognizable by the darker shadows.

The laity are becoming so well educated along this line, that they look with suspicion upon the doctor who fails to use this means to confirm his diagnosis, and many instances are recorded where bad results are obtained from neglect of this sort, and the patients get a judgment through the courts, on the grounds that the doctor was guilty of mal-practice, in failing to use this process in the treatment of a fracture.

In the case of a fracture or any bone lesion, a picture should be taken before and after the treatment, the latter to prove that the results are the best obtainable under these conditions.

RESULTS OF X-RAY TREATMENT.

Everyone seems to be writing about the results of the use of the X-ray in the treatment of disease, now that sufficient time has elapsed since it was recommended first as an adjunct in treatment. Childs, in the New York Medical Journal, considers the results of its use in the treatment of epithelioma, carcinoma, sarcoma, sarcoma, lupus, rodent ulcer, tubercular glands and joints, Hodgin's disease, lupus erythematosus and acne rosacea, in cases treated by himself and others, and arrives at the following conclusions:

First: The therapeutic field of greatest usefulness of the X-ray is with superficial epithelioma and rodent ulcer, and lupus vulgaris, when the area involved is conspicuous, as on the face and neck, and where a cosmetic result is particularly to be desired.

Second: Healing by the X-ray leaves the smallest and least perceptible scar; for, when properly applied, it destroys only diseased tissue, and particularly commends itself for use in those localities where it is undesirable to sacrifice the surrounding tissues.

Third: The X-ray is very efficacious in many obstinate cases which have resisted the ordinary methods of treatments, such as acne rosacea, chronic localized patches of eczema and psoriasis, lupus erythematosus and kindred skin diseases.

Fourth: The result in Tuberculous glands, when no suppurating focus is present, are encouraging, and the enlarged masses of glands in Hodgkin's disease appear to be susceptible to the treatment.

Fifth: The X-ray should not be employed in any operable, deep malignant growth, with two exceptions: First, as pointed out by Coley, where a surgical operation would sacrifice an extremity, and even in this case the value of the X-ray is uncertain, and is determined by a few weeks' trial. Second, as mentioned by Pusey, with a view to limiting the operation by checking the growth, when immediate operation is inadvisable.

Sixth: The X-ray may be of service even in inoperable malignant growths, by relieving pain, diminishing discharges, and lessening their offensivenes, and in many cases life may be prolonged in compartive comfort for a considerable period of time. Furthermore, from these apparently hopeless cases a number of remarkable improvements and a few recoveries have been reported.

Seventh: The X-ray should be used as a prophylactic against return after all operations for the removal of deep malignant growths.

Eighth: The area of exposure should be wide and the intensity and quality of the rays should be adapted to each case.

THE X-RAY AS AN ADJUVANT IN THE TREATMENT OF CANCER.

Dr. Skinner states that in his opinion, the following summary states the case comprehensively and succintly:

First: the X-ray has demonstrated that it exhibits a powerful curative influence over many cases of malignant disease.

Second: there is reason to believe that many post-operative recurrences are more resistant to the X-ray than the orignal growth; also, it is easier for the X-ray to influence microscopic foci of malignancy than those of larger size. For these two reasons, roentgenization should be commenced as soon after ablation as is consistent with the safety of the tissues involved in the operation wound, before recurrence can have been inaugurated.

Third, it is impossible to tell beforehand which cases will respond happily and which will not, or which cases will need roentgenization and which will not, hence the only way to be sure of treating those cases that will respond and all that will need it, is to treat all cases.

Fourth, is it not, then, unfair to the cancer patient to submit him to the terrible risk involved in omitting the rotuine, post-operative application of so powerful a means for good as the X-ray?

Fifth, the advantages sometimes claimed for pre-operative roetgenization have not yet proven to obtain, and in any event the disadvantages which this procedure may precipitate are sufficient to constitute a strong argument against its employment, except in specially selected, rare cases.

X-RAY DIAGNOSIS OF GASTRIC CANCER.

Two cases of gastric cancer diagnosed by the X-ray are reported by Sydney Lange of Cincinnati. In one, the diagnosis was verified by operation. Operation was refused in the other but the radiograph was identical with that in the previous case and the patient died six months later with every indication of the disease. Lange thinks that the X-ray will be an important and frequently a determining factor in the early diagnosis of gastric cancer. The lack of other early constant and positive clinical signs renders this method the more important.

THE USE OF ELECTRIFICATION IN CHRONIC DISORDERS OF THE STOMACH.

Dr. J. G. Wells, thinks that electrification in the treatment of stomach disorders has not been used as extensively as the large percentage of cures would warrant. He states that those who have used electrification in stomach diseases to any extent, are firm believers in its value in certain conditions which have been treated, but not alleviated by the regulation medical treatment.

He reports six cases, including chronic gastritis, ulcus ventriculi, atony, hyperchlorhydria, nervous regurgitation, severe gastralgia, in which electrification was of marked value.

A CRITICISM.

The same proposition was put to a wise man and a fool. The fool decided and then acted, and the wise man investigated and then acted. In the article on page 253 in the October number of your journal there are some stateemnts about subjects, that evidently have not been investigated. As a rule you can get more advice about something important from some one who knows nothing about it, than you can from someone who does. The general practician is an important factor and very necessary in the profession, but the one who is so narrow and bigoted as to condemn a thing because he does not like it, and especially when he knows nothing about it, is a nuisance and a menace. To anyone who understands and knows something about phototherapy, the light treatment is a valuable aid, and the one who is posted will not claim it will cure everything. Neither will anyone who has carefully investi-

gated and studied the X-Ray claim too much for it, and he will not burn anyone. The Electro-Therapeutist who has studied the science, and has the "know how" will not claim it will cure every nervous condition. Electrification is one of the best remedies we have, but the lazy and ignorant man will fail without the "know how." Judging from the statements made on page 253 he knows little or nothing about photo-therapy. He says "the effects are alright." He does not know what the effects are, because his next statement is as follows: "But it has only a limited, and withal, a disappointing effect."

Anyone who understands scientific electric-therapeutics knows that the field is not limited, and the effects are not disappointing, in seletced cases. It is a strange thing, but it is a fact, that some of the smartest physicians in their respective lines, make the most foolish statements about things of which they are ignorant, in other lines. The time has passed when a man can know all about everything. Now, in order to succeed, the doctor must know a little about a good many things, and a great deal about some few. things. If he will study X-ray-therapy, photo-therapy, and electro-therapy, he will change his mind. The general practician does not have to become a limited specialist in order to practice this special branch, but he can get the "know how" easily and quickly and at small cost, and use it, in selected cases, with great benefit to himself financially and professionally. Do not guess, but know. If you do not know yourself, ask the man who does. If you do not want to know yourself, keep still. I still believe this policy is a good one to follow, hence I will make no more comments.

DISEASES OF CHILDREN

DR. J. V. STEVENS,
Janesville, Wis.

The moral delinquency known to exist among public school children and the students at some higher institutions of learning, is attracting the attention of many earnest, thoughtful and capable educators and teachers and people generally.

A very strong presentation of the subject was made recently, last week, at the meeting of the Wisconsin State Teachers' Association held in Milwaukee, by Professor A. J. Hutton, Principal of the Boy's reform school at Waukesha, Wis. Dealing as he is constantly, with the delinquents of the male sex and having been interested for many years in studying the causes of the constantly increasing number of them that are sent to his school, he has some decided opinions, that deserve the consideration of all who are interested. And who is not, either for themselves or for the children of their friends and patrons?

The absolute unanimity of opinion that prevails among those who have given this important subject vigorous and effective investigation is very convincing as to the deplorable facts in the case and practically, also, as to the productive causes and fortunately, regardnig the prophylactic and curative measures that can be sucessfully employed, arrests our attention and should enlist our active co-operation in all movements calculated to remedy this evil, which not only destroys the usefulness of the individual, but strikes deeply at the very foundation of our national life. The lack of sufficient moral instruction and of parental control in the home and the foolish and wicked indulgences allowed, both as to the wasteful expenditures of time and money and permission to visit questionable and cheap

places of amusement in the company of those still more advanced in their downward career are the most readily apparent causes.

The future citizen of this nation ought to be most emphatically taught to respect the rights of others and that every one physically competent, should be interested in some form of work that will help to care for himself or herself and provide for their present and future physical and intellectual needs. Obedience should be so enforced that it will early become a habit and at the same time the child should be taught reasons why it is right and necessary that they should obey wholesome rules and regulations, for their own good and that they may not encroach upon the rights of others, either purposely or unwittingly, but always expect to yield that deference to the wishes and rights of others that they expect from their fellows.

At the same time provision should be made for an opportunity for suitable and useful recreation and play. It is encouraging that the Child Welfare and National Play-Ground Associations are arousing public interest in providing for this actual necessity in the life and development of the child. Central concentration of people in city life in such startling and increasing ratio to the population, as a whole, has made it more and more necessary to do this. Formerly, many or most children grew up with surroundings that made it possible to give them tasks suitable to their age and capacity and also pets and sane methods of recreation that kept their minds and bodies healthfully employed. Our schools also helped to regulate the thoughts and activities of their pupils and also gave some emphasis to the teaching of morals and right principles of living and of action and association with others, based upon the study of the Bible.

Super-sensitive people have made this legally impossible, but they have not and can not take away the right of school officers to refuse permission to any one to attend the public school, who is known to be a menace to the morals of their associates. We would emphasize this plan to help remedy the condition now existing. We know of instances where it has been employed to great advantage. These individuals ought not to be allowed to continue their debasing influence till chance, or their flagrant lapses from right conduct bring their conduct to light, but teachers and other officers of schools should be constantly on the alert to discover them. Children, whose parents are endeavoring to teach them to be honest, pure and upright ought not to be checkmated and defeated by the contaminating influences of those, who have no legal or other right to have such an opportunity, at the public expense.

Children, who are thus allowed to become a public menace and whose parents are either incompetent or unwilling to rear them properly should be placed in proper environment, that this most potent of influences may reclaim them and teach them the lessons, that they must learn, if they are to be safe citizens of this country, or of any other. That "environment," in such cases will be some state institution under the management of skilled eeachers like Prof. Hutton. We believe in the elargement of the curriculae of our public schools, to include physiologic and moral instruction, because it seems to us to be simply a measure for the self-preservation of our communities and our nation.

Disregard for parental authority and commands makes it an easy step to violate the moral and civic laws and finally leads to discovery and punishment.

Many criminals have been manufactured by the state itself, in this way, to afterwards become inmates of penal or charitable institutions and in some cases a continual expense for a number of years, or for life. How any intelligent parent can permit a child of

either sex to be on the streets for hours, day or night, particularly the latter, with no other purpose in view, but to seek amusement and an adventure of some kind, is almost beyond comprehension to those who know the dangers and results, as physicians do, and parents in many cases finally come to know, therefore we must charitably try to believe them ignorant. Still they are culpable in allowing their children to be away from their homes, except under proper supervision and environments.

This is what these organized Associations, referred to, hope to succeed in calling the attention of the people to. Physicians should do their full duty in aiding to correct the tendencies referred to and thus contineu to be foremost in their efforts to prevent the effects of vice and disease in their respective communities.

The progressive city of Menominie, Wis., has shown its deterimnation to keep in the front rank in all matters of general interest and value to the people by recently employing a visiting nurse to aid and supplement the work of their health department. No better investment could be made by any city, nor a more suitable way to help to prevent the spread of contagious diseases, as well as the moral contagion frequently mentioned, nowadays as emanating from the schools. In another city of Wisconsin a nurse is employed as the truant officer, in addition to her other duties as Asst. to the health officer.

Delinquency of the young will be discovered in this way more quickly and certainly than in any other way that we can think of.

LARYNGITIS.

The use of the Iodide of Soda or Lime is a most reliable treatment for all forms of Laryngitis. More than twenty years ago Dr. E. N. Smart of Humphrey, Neb., wrote an artcile for publication, giving clinical reports of several cases of the use of Sodium Iodid in "Pseudo-Membraneous Croup." Sometime after I saw his paper, I had a very severe case, which seemed to demand tracheotomy at once. This was decided on, but while getting ready to do it, I thought of the paper referred to and commenced its use immediately in five to eight grain doses in a child of about four years of age frequently repeated, perhaps every fifteen minutes at first for several doses. In one hour the improvement was sufficiently marked to satisfy other physicians, observing the case with me and myself that we could postpone the operation. Recovery was slow but uninterruped, though the child could not speak above a whisper for two or three weeks afterward. The use of the remedy seems to loosen and either lead to the expulsion or liquefaction of the organized membrane, the latter where it is not too dense and hard. We are fully aware that there is a demand for the removal of the name of the condition mentioned from our nosology of diseased conditions and that many believe that all cases of Laryngitis with any membrane present are always Diphtheria cases. We find no fault with those who think this the safer plan and we endorse the idea on general principles, but we can not admit that we have ever been fully convinced, in view of our experience that it is absolutely true.

Fortunately the remedy is a good and a safe one for the other varieties of croup and of distinctive value in known cases of Diphtheria in addition to the use of Antitoxin.

IVY POISONING.

The use of fluid extract of Grindelia Robusta in the strength of one dram to the ounce of water, makes a very effective and satisfactory application and produces relief immediately.

♣ ♣ ♣

Please send your favorite prescriptions, with reports of cases and photographs, where possible, to illustrate.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,

THE SPECIALIST AND GENERAL PRACTITIONER.

The probem of the proper relations of the specialist and general practitioner is one which like the question of equitable taxation, we shall always have with us. As there never yet has been a satisfactory equalization of taxes so the relations of specialist and general practitioner will never be adjusted with satisfaction to all concerned.

The relation of the specialist to the general practitioner is a matter of individuals and environment. One general practitioner may have so much general practice that he has no time for some of the special lines, as the eye and so he sends all his eye work to the oculist. Another general practitioner may have a good general practice and yet have some spare time but he may dislike eye work and so send his eye cases to the ophthalmologist. Still another general practitioner may have the time and the ability to do much of his own eye work and sends but little to the eye man. Thus no fixed rule can be established regarding the proper division of special work.

Naturally the specialist thinks that the general practitioner should refer all the cases in his special department to him but the general man may think differently and have good ground for his opinion. Many different specialties have developed until every part of the human anatomy has its specialists. If the general practioner refer every case belonging to a specialist he will soon have only the poor and the deadbeats to treat. While there is much of the speciality work which the general practitioner can do himself yet there are certain parts of the work he should not attempt. There are operations which should only be done by those having special training and practice. There are operations which the man who is performing many of them, can do much better and with better results than the man who only occasionally does them. In such cases the physician should consider the best interests of the patient. Then there are cases where the general man may be in doubt regarding diagnosis. In such cases he may obtain the diagnosis and opinion of the specialist and treat the case himself. Many such cases the general practioner can keep in his own hands and treat, having the specialist for a consultant.

The number of specialists in all departments of practice has increased until the competition has become as sharp in special practice as in general and often questionable methods are employed to obtain practice. On account of the increase in the ranks of specialists, many of them do work which belongs to the general practitioner, in order to make but a living income. Measures are being discussed for limiting the number of specialists. At the recent meeting of American Medical Association it was proposed that the medical schools should have a post graduate course in opthalmology, requiring ane full year of work and leading to the degree of doctor of opthalmology and that a special board of examiners should be appointed to act alone or in association with general boards as now constituted to determine the fitness of opththalmologists and if boards as now constituted, to determine tiec the specialty. Such a measure would be of general benefit. It would lessen the number of specialists, thus removing some of the objectionable commercialism

of the present and it would enable the general practitioner to know to whom to refer cases, with the assurance that the specialist had the requisite ability. In their relations to each other the specialist and the general practitioner should be just and honorable and neither take unfair advantage of the other. They should work together for their mutual benefit and for the greatest good of the patient.

PHYSIOLOGY OF MARRIAGE

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"Whom God hath joined together, let no man put asunder." The union of the sexes in the conjugal relation, was solemnized in Eden, by the Almighty himself; and man shall not interpose between husband and wife, which may cause alienation of the affections of either; thereby rending the ties asunder. In the garden of Eden, Adam said Eve was "bone of his bone, and flesh of his flesh."

In Milton we read:—"On she came, led by her heavenly Maker, though unseen, and guided by His voice; (though unseen) of nuptial sanctity and marriage rites. Grace was in all her steps, heaven in her eye; in every gesture, dignity and love. I, overjoyed, could not forbear aloud, "This turn hath made amends; thou hast fulfilled thy words,—Creator bounteous and benign, giver of all things fair; but fairest this, of all thy gifts."

Those who would be most healthful; most useful, and most happy in life, must honorably, at a suitable age, enter the marriage state. This is so obvious, that one should almost apologize for making the assertion. If the marriage relation is entered into by men of honor and principle, it will be lasting; i. e. as long as they both do live. The responsibility assumed by marriage, is a serious one, and it should not be hastily nor inconsiderately undertaken. The parents of the writer lived happily together for fifty-eight years; and only death severed the ties. It will be but a short time till the writer will celebrate the semi-centennial of his marriage. I don't speak of these cases except to illustrate the fact that marriage should be for life. The prevalent frequency of separations and divorces is a disgrace. It is, however, held very lightly by the aristocratic 400, so to speak. There should be physical and moral conditions and concientious character, as prerequisites to marriage. To regard the marriage vows as sacred, and inviolable is the only safeguard against the divorce evil. In Indiana, the law is very strict in prohibiting marriage of diseased men; men who may transmit disease to their offspring. Both the man and the woman are examined, (orally) and a rigid investigation under their oaths, is made, before a license is issued.

The marriage of blood kin is a physiological error; but in the beginning of the human family, as recorded in Holy Writ, such a relation seems to have been unavoidable. Abraham married his niece, Sarah; and Milcah married her uncle, Nahor. Christ, accompanied by John, Andrew, Peter, Phillip, and Nathaniel, attended a marriage at Cana, of Galilee; so while the blessed Lord never married, he nevertheless recognized its sanctity, by gracing the occasion by his presence, and miracle for the entertainment of the company present.

While St. Paul advised against marriage, he also declared it was better to marry than to burn (sin).

The early patriarchs were especially fitted to marry, because of the purity of their lives, and the health of their bodies. Only by sinful gratification of lust, indiscriminately, did loathsome,

and blighting disease make its appearance.

St. Paul's celibacy is not to be followed, nor his advice, not to marry,—as without marriage, there will be the temptation to sinful lust, which brings a train of evils untold. Young men not properly influenced by the opposite sex are apt to become coarse and sensual; young ladies, are delicate and sensitive when pure and chaste, and are social. It is not easy to determine on which of the sexes, the influence is most essential to restrain an evil tendency; but there can be but little doubt that a pure female has a decided influence for good with all with whom she may be associated. While, as the family circle is broken, by the young men going forth to earn their own way in the world, the pitfalls are on every hand; and the love of a pure girl, has its restaining influence on the life and career of a young man; so as soon as circumstances will allow, marriage should be encouraged. It saves many a young man from evil courses. At this critical period,—though not equally so, perhaps, to both sexes,—it is wisely ordered, that new passions spring up, unfelt, or almost unfelt, before. It is the lure of opposite sexes. It is even stronger than the love of brothers and sisters; but is a renewal of the family love, with much more superadded. It is stronger than any other affection; as it is for life. Out of this new attachment comes marriage. How wise, and benevolent was God, in ordaining such an institution. He said to Adam and Eve that they twain should be of "one flesh"; and they were told to multiply and replenish the earth. As God is the author of all good to the human family; it was certainly exemplified in ordaining matrimony; or a school for the final education, and happenings of the human race. Marriage should be a social, intellectual, moral and physical union, to be perfect. It becomes a duty, and a physiological necessity; as without it the world would be much worse socially than it is. Some have confounded the social feature of the rite, with the merely physical, or the purely lustful. They are widely different. Indeed they do not always exist, even in the male sex; and in a normal state of things, in the other, never. Marriage is the golden chain that binds society together. Remove it and you set the social world ajar, if you do not drive it back to its original chaos. Remove it, and in a thousand years there would be no substitute for it, not as a plaything or a mere carnal institution; but as one of life's greatest blessings, privileges, and responsibilities. It is a religious duty, and a God-Given ordinance.

The next most important consideration is, the age when the union of the sexes should occur. It may be said that the laws prescribe that the age of the female should be eighteen years; and the male should be twenty-one years of age, in order that marriage should be legal. Even at the lawful age, circumstances might be such as to preclude the rite, at those ages; as there are certain disqualifying details to be considered, and complied with legally, before the estate can be entered into.

There is no doubt, that in almost every instance, marriage is impelled by the development of the sexual appetite. If it were not the almost universal impelling motive, celibacy would be the rule, men are deterred from matrimony,—especially among the wealthy classes. We need not go further than New York, London and Paris, to find that matrimony is not righteously entered upon; but is held but lightly binding, and no longer for better or for worse; for richer or for poorer. It is for richer or not at all; and if it is not for richer, the Courts are appealed to for a separation, or a divorce; generally the latter. The primary purpose

of the natural appetite under reasonable limits, not only terminates in enjoyment; but coming of offspring is a blessing which binds the husband and wife in stronger ties of affection. The curse of the age is the aversion to families among too many married people; and a physiological law is wickedly violated, which may not only estrange the wedded pair; but imperil the health, if not the life, of the female. The penalty is inevitably visited upon such violations, sooner or later.

(To be Continued.)

BUSINESS SIDE of the DOCTOR'S LIFE.

One of our subscribers requests our readers to write on the subject of the "doctor and his business success." That very many doctors are not successful business men is generally conceded to be true by the laity and the doctors themselves.

The etiology of this preventable disease will be a logical place at which to commence the consideration of it and is in accordance with the customary procedure in a doctor's thinking. There are several causes, we think, and among them are the following:

The doctor, especially of the present time has usually been constantly in school for from sixteen to twenty years and has not had any business training of any kind. He is graduated and with, or without a hospital course, offers his services to the public as a physician and has to learn the best that he can how to cope with the business problems confronting him and with the people who may employ him, a certain proportion of them intending to beat him out of his fee, or to induce him to reduce the amount that in justice to himself, he ought to charge for the work performed for them. Usually, he conducts his business at first, altogether too much on the sympathetical plan, and makes the sad mistake of readily yielding to the suggestion, that he ought to reduce the amount of his bill, because his clients had been having so much bad luck and other expense. Their grocery and dry goods and other bills are not made smaller for the same reason. Why should the doctor be the only one to contribute of his hard earned money to lessen the other expenditures. Soon after the writer commenced the practice of medicine I had an older doctor in consultation in a serious case, quite a distance in the country. An abscess of the spleen was opened and cared for till the recovery of the patient was established. When the husband of the patient finally called, some months later, to pay his bill, he found fault with the amount charged by each of us. Knowing that my colleague, a native of the Emerald Isle, as was my client, had quite a reputation for making his collections and as a wit I suggested that we visit him, because I said that I could not change his fee in any event. The first question that he asked him was if he owned the 160 cres in his farm and the personal property thereon. He proudly admitted that he did and that he did not owe anyone but the doctors. Then the doctor asked him if he had passed around a subscription paper among his neighbors to assist him to pay his doctor bills. He indignantly denied that he would think of doing such a thing as that. My friend asked him if he did not think that he had commenced asking for help to pay his bill rather far from home? He saw the point in an instant and paid our bills in full without another word of protest.

It is true that the fact that so many of the older doctors have been careless respecting the collection of their bills,

makes it harder for any doctor to do business in the right way in many a community, another cause of the difficulty existing in so many places that prevents doctors from being a business success. Another cause is the attempt to do all of the business offering, whether it be attended to at some neglect of each of those seen, to a degree or not, probably overtaxing the doctor's strength in the effort and so filling up the time, that he does not try to reserve any time for the proper attention to his accounts and their collection. The symptomatology is evident to others to some extent, and very clear to the doctor, when he has to deny himself and other members of his family, necessities, comforts, pleasures, and luxuries that he and they are really entitled to and because he has earned enough to pay for them, but has not collected it and knows, after a while, that he may never collect.

Thus crippling him because he can not supply himself with the instruments, appliances, books and periodicals, that he really feels that he needs to assist him to do his best work.

The diagnosis we will consider established from the Etiology and Symptomatology. The Prognosis may be conservative, but should be better than it has been, because though the treatment of the condition may not be completely worked out in all its details, as yet, the better understanding of the real causes will lead to the application of prophylactic measures I hope, that together with remedial measures, not heretofore very generally employed, and the benefits of publicity and discussion and consultation will, in the near future, give us a good prognosis and greater success in meeting this vital ailemnt, affecting doctors so largely. In the treatment of the case we would suggest that there be a better system of maintaining "free clinics" in our cities and that none of our doctors refuse to be a party to treating so many people free, who are able to pay for the medical care that they may require. If clinical material was not so abundant and selected with an idea of using only the cases, who are deserving the free treatment and afford the teacher valuable illustrations of disease expression, they would have more value to the student, than they have as often conducted. In such a case not so many would get free treatment that ought to employ a physician and pay him for his services. In large cities, this is certainly a serious problem and robs the profession of much legitimate income. Secondly convince yourself that your advice is worth as much as the average of your colleagues and let it be known that you expect to have the full fee, for your time and advice and help in any way, that is charged for like services in your location. Only excepting in cases that you are satisfied are deserving and unable to pay, charge these nothing, or tell them what to pay you when they may be able to do so, at some future time, the latter plan is the best and helps them to preserve their self-respect. As soon as you are satisfified that any of those asking for your service are actual dead-beats, refuse to attend them, by being "too busy," which you can be, truthfully, if it is only in reading a good medical journal. Also try to collect any bill due from them for previous services, if it is possible to get it, the latter procedure is usually very successful in keeping them away in the future. Be very careful in keeping your accounts in a systematic and methodical way, that will permit you to make out an itemized account in full detail, whenever it is asked for. There are systems that you can secure that will make this possible and easy for you, without any previous knowledge of bookkeeping. (We expect to illustrate some of them soon in these pages). Statements should be sent out promptly on the first day o feach month unless a patient may be under treatment at that time for some

acute disease. There need not be any delay in chronic cases, still continuing treatment, unless there is some understanding to the contrary with clients. In the smaller places and rural communities, one ought to have such an accounting system that a book carried in the pocket will show balances due, so that a settlement can be made at any place and at any time. There are such systems extant now.

All that has been said so far, has dealt with the charging for and collecting the charges made for services rendered. There is a different and very important phase of the subject. It is, how is the medical man to get acquainted in the community and establish himself in the confidence of the people where he has decided to locate? This is a complex question and not so easy to answer, even from experience, as the problems, previously mentioned, which occur after one has had an opportunity to demonstrate his skill, in some measure.

We are of the opinion that it takes some longer to get into a paying practice today, than formerly, perhaps one reason for this being that there are more doctors proportionately to the population, and certainly a very important reason being, that there is less sickness to care and prescribe for.

The better knowledge and observance of sanitary and hygienic laws, which have been so long and so faithfully taught by physicians have lessened the amount of work that doctors have to do as compared with the past, without any question.

The further information that the laity is now seeking from doctors should be carefully imparted and very religiously charged for and collected.

No professional people are giving advice gratuitously, or ever have, except the doctor, to any appreciable extent.

The greater value to a person of being kept well, as compared with being helped to recover from an attack of serious illness, will be better and better understood as time passes and the medical profession ought to conscientiously prepare themselves to be able to confidently and correctly advise regarding prophylactic measures, as well as to meet all diseased conditions and emergencies with the most modern and approved kinds of treatment and charge a good fee for their services every time.

Our pre-requisite for success then is this thorough preparation. To be successful one must not only possess the necessary knowledge, but be ready to use it to advantage instantly, when it is needed. To do this requires a clear head and a steady hand.

This brings us to the consideration of the habits of our candidate for the confidence of the public. In times past great allowances seem to have been made for careless habits and a disposition to waste one's time in questionable places of loafing and in the company of those who were idling away their time, if not spending it in a distinctly bad way, but that day has surely passed, either in the case of corporations or of the public. Both of them are scrutinizing their employees' habits and the places where their leisure time is spent and governing themselves accordinly. No doctor can expect to succeed in business now days who is known to frequent drinking places and waste his time with companions of the kind found there. This applies with equal force to the other professions too, as my observation teaches me. This much I know from actual experience and observation, that the proprietors of such resorts do not employ those who patronize them when any of their families are very sick as their physicians.

The doctor should keep his office hours as closely as possible and in this day of universal telephones keep in touch with his office, or residence or both, all of the time. To neglect this will lead to the probability of losing many calls. It will surely be mentioned by many people that

anyone can can always find that doctor when he is needed or, one can never find the other one in a hurry, etc., etc.

How spend one's time while waiting for patients? One good way was suggested to the writer while a student at college, by a man of large experience in general practice, viz.: Imagine receiving a call to some kind of an emergency case and picture the setting of the case fully and then decide upon just what you would do and say, if it were a fact that you were responding to such a call at some time. It is quite as important to you, what your manner is, and how you can turn some of the panic-stricken people standing around into active helpers, in some way, even if what they are to do is not very important. Your generalship in a few cases of this kind will go very far in determining your professional standing in the community and any preparation of the kind suggested will help very much in enabling you to acquit yourself satisfactorily and be of definite value in a business way to you.

This imaginative plan can be carried on indefinitely and with great profit.

One will succeed better in a business way if they can avoid getting in debt and can manage to pay all of their bills promptly. It is better to borrow some money to meet small obligations without delay, than to have the name of being "slow pay."

One way to keep out of debt is to be careful about the investment made in equipment. It is necessary to have a neat and clean place, furnished tastily if sparingly, in which to see patients. Judgment should be uesd as to the location according to the size of the place and the location of the competing doctors.

Do not buy any instruments or appliances, that can be dispensed with till they are wanted, only have a reasonable supply for emergency work. It is to be remembered that the public are able to put a pretty good estimate on the amount of work that you are getting to do when you first locate and will respect you for walking, if necessary to see some of your patients till your business demands that you have a conveyance of your own, or that you make an arrangement with a livery stable or garage to take you to your "hurry-up" cases, not forgetting to let it be known, that you have such an arrangement.

Whether a doctor should take care of his own horse or not depends upon circumstances and environment, happily the advent of the automobile has helped to solve the problem, in a measure, because to smell of oil or gasoline, on account of caring, in part at least, for your car is quite admissible everywhere and not as likely to cause unfavorable comment as to have some of the odors of the barn about one's clothing. We would not advise trying to deceive the people in regard to one's financial standing, nor to be too communicative about one's private affairs either.

Be affable without being too familiar and preserve your dignity at all times. Meet people heartily and show your pleasure at making their acquaintance and be sure to remeber them and their names if possible, when you meet them the next time.

Show a real interest in all affairs of public moment, but avoid petty political differences and do not accept any political office. Do not be afraid to show your colors respecting questions involving right and wrong and help all good causes, all that you can.

Treat your colleagues in the profession ethically, whether they seem to treat you in the same way or not and never permit yourself to speak disparagingly of them or their work, even if you cannot commend it. All these lines of conduct and preparation will help one to achieve a professional and a business success.

I was pained to hear a Senior in one of our Medical Colleges say recently,

that a doctor, whose habits were dissolute and who was drinking too much alcohol seemed to prove that one could get just as much business that way as to be a gentleman and have more respect for himself. Suffice it to say that I know that it was deceptive when one knew all of the facts and that his business was very undesirable and unsatisfactory as could not be otherwise.

To make this department and in fact, any and all of them as helpful, as it is hoped they may be, requires an expression of the opinions, of as many of our readers as we can secure. Therefore please send them to us and do not hesitate to criticise fearlessly any editorial expresion of opinion found in these pages and aid us by your queries and suggestions frequently. We ask all of our correspondents to be "good-natured" too if any of their communications incite criticism and bring out some differences of ipnion.

FIRST COMPETITIVE PICTURE

We present on this and the following page two "cuts" illustrating the office building of Dr. S. B. Montgomery of Cynthiana, Ind., which he has sent as an "entry" for the prize offered on advertising page number XX in the October number of the "Recorder." We can not illustrate the provision for a drive on the right hand side of the office, standing fronting the street, which is ten feet wide and leads to the doctor's garage at the rear of the office. There should be a large number of entries for this prize, each of which will be helpful to some one who intends to build an office or remodel one. Some of them, of course, suiting one doctor's needs and ideas and another suiting someone else still better.

Model Office of Dr. S. B. Montgomery, Cynthiana, Ind.

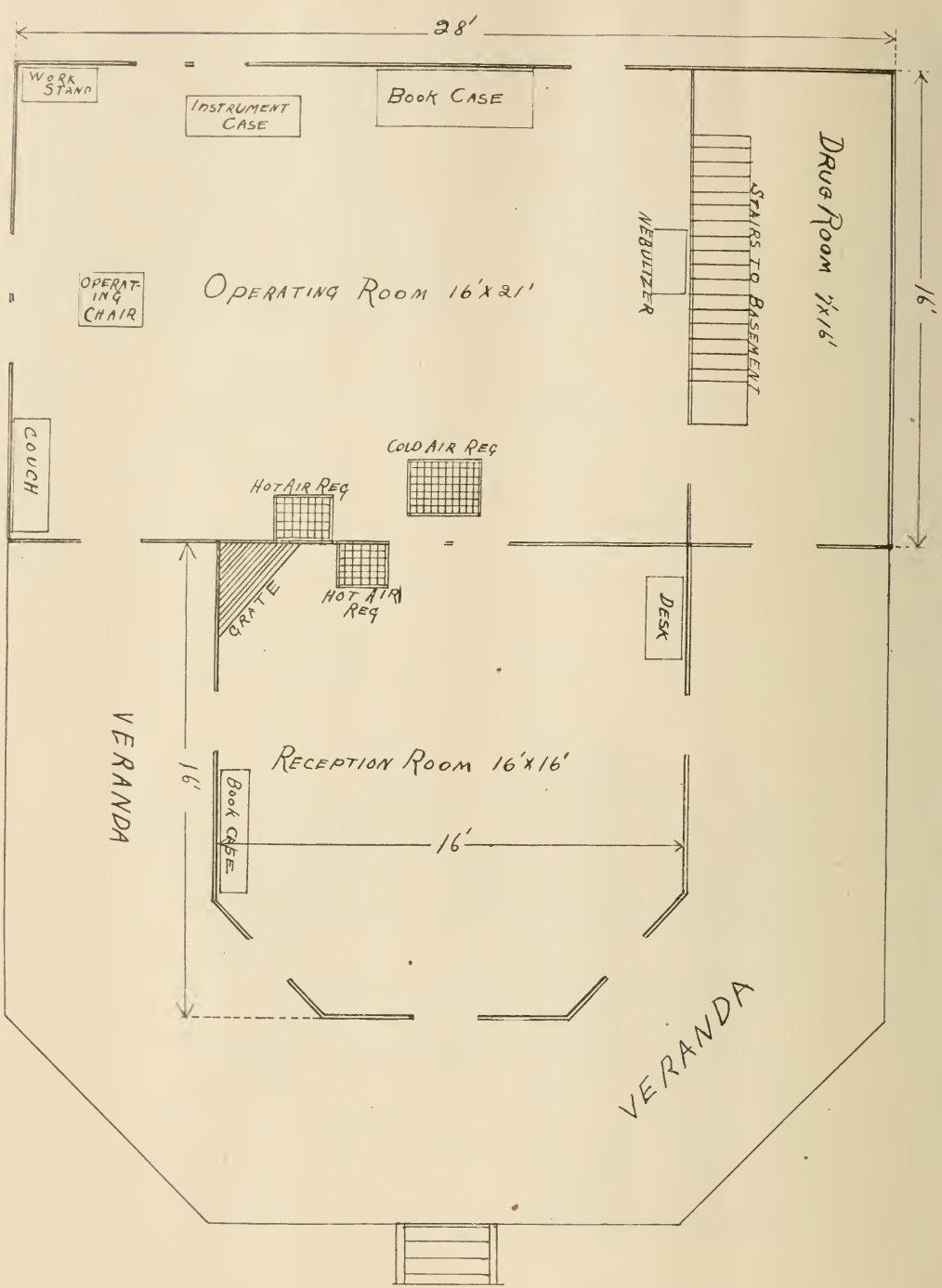

Diagram of Model Office of Dr. S. B. Montgomery, Cynthiana, Ind.

Basement 16 x 28 for coal and furnace. Lighted by acetylene gas from town plant. Building concrete blocks to window sills, then brick, covered with slate. Front room finished in oak, back rooms in pine with a mahogany finish stain. Floors stained, dressed and varnished, with rugs.

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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 14 NOVEMBER, 1911 No. 11

THE EFFECT OF TOBACCO SMOKE ON GROWING PLANTS.

A German scientific observer finds that in every case there was a marked difference between the plants grown in pure air and those subjected to tobacco smoke, even in small amounts.

..Seedling beans grown in pure air, showed tall, straight vigorous stalks, while those grown in air tainted by tobacco smoke had abnormally short, thick and crooked stems. The experiments resulted in similar effects to those that other observers have noted in plants that were grown in air contaminated with illuminating gas and other kinds of smoke, but to a much greater degree. Very minute particles of the tobacco smoke sufficed to produce the deleterious effects and they were counteracted promptly on placing the plants in pure air again.

The same investigator carefully noted the effect of tobacco smoke on the various micro-organisms, found in drops of moisture clinging to the walls os smoke-filled rooms. They were not only injuriously affected, but were generally killed, in a short time.

Certain varieties died in an hour and many kinds of bacteria in a half hour. It is claimed that full grown plants are not injured by tobacco smoke by many gardners and the same scientist proposes to determine this point by further investigation.

Poisoning by inhaling illuminating gas, both accidentally and voluntarily, is quite common and in states where careful statistics have been kept, it has been found that more deaths have been caused in this way than from either Measles, Scarlatina, Typhoid fever or the dreaded Infantile Paralysis, viz.: from four to five per 100,000 of population per annum. This has also been found true in Germany. The proportion is still greater in gas-poisoning, when the fact that all people are exposed to disease contagion, is considered and that only a comparatively small portion of the people use illuminating gas in their homes.

Professor Sedgwick in the Sept. 14th issue of "Engineering News" shows how the Gas Companies in Massachusetts secured the repeal of the former law in that state that prohibited the manufacture and sale of illuminating gas that contained more than 10 per cent of carbon monoxid in 1890. He states positively the greater danger from the use of the so-called "water gas" as compared with the older process of "coal gas." He states that there were few, a half dozen or so, fatal cases prior to the repeal of the law respecting the proportion of carbon monoxid and over 1800 deaths in the one state, since its repeal in 1890. The injurious effects where fatal asphyxiation does not occur, are worthy of consideration, too.

"A good word for tobacco" is the heading of an article, written editori-

ally for "American Medicine." The writer say: "that about all that we know of tobacco is that it is injurious to the very young and is apparently harmless to adults. The whole subject, like too many others inherited from our pre-scientific days, is full of baseless opinions. We want accurate data, for at present we may assume from Dr. Meylan's figures and observations, (Professor in Columbia University), that as the best developed college young men are the users, the habit is a natural and wholesome one.

The only thing that we are sure of is, the fact that even a tiny amount is harmful to children and we must advise all to abstain until well past twenty. Nor can we yet say, what is moderation or excess, for we occasionally find men seriously poisoned by an amount, apparently indispensable to someone else.

This seems to be rather a weak defense of the habit after all and does not take into account the effect of a bad example furnished to the very ones that it is admitted, are very injuriously affected by its use, viz.: the boys. This is another instance where preaching, when opposed by practice will have but little effect upon them. With no positive claim of any benefit derived from the use of tobacco, by anyone, and only the negative statement that in some cases it may be harmless and nothing said of the financial loss unnecessarily incurred, the abstainer should be more than ever confirmed in his abstinence.

♣ ♣ ♣

DUST.

Apropos of the recent meritorious crusade in many of the metropolitan daily papers against the common practice of the suspension of street sprinkling at a time of the year, when there are not only dry "spells" of weather, but high winds, too, to fill the air that we are compelled to breathe, with the filthy and bacterium loaded dust, containing more than the usual number of disease-producing micro-organisms. is the success that has been attained by the use of an automobile Vacuum Street Cleaner. Their use has been proven to be entirely practicable and extremely satisfactory. This method of removing the dirt of the streets and the dust with it can be easily applied to street cars also and their portion of this work quickly and thoroughly done. From a sanitary and hygienic standpoint this idea appeals to us very strongly indeed. So much so, that it seems to come as one of those "revelations" that make us wonder why it has not been employed long ago and why it does not quickly come into universal use. The many advantages which are apparent over present expensive and unsatisfactory methods will readily appeal to anyone who gives the subject even superficial thought. Foreign cities, Berlin, and Vienna and other cities have used them and are using these machines and find them very desirable, though the initial cost is considerable, as yet.

♣ ♣ ♣

CHILBLAINS.

The time of the year is approaching and even at hand, when the children are subject to this distressing ailment, because of their thoughtlessness in permitting their feet to become chilled to a degree that causes the inflammatory condition of the skin and connective tissues and muscles, called Chilblains. We have never failed to secure very prompt relief, for our patients, whether the younger or the older ones, by applying a reliable preparation of Echinacea A. in full strength, using absorbent cotton, retaining it with a bandage. Some observers claim that 50% Alcohol is always equally as good as the remedy mentioned. Many careful tests, comparing the two remedies, have convinced us that there is a wide difference in the effect obtained. "S."

EDITORIAL NOTES.

Are you resolved to compete for that fine combination fountain pen premium? It is well worth your effort to do so.

Space will be given to notices of Locations and Apparatus for sale by private owners, who are doctors, also to Removals, Deaths, Births and Marriages of our subscribers and their professional friends and Personals that will be of interest to our readers.

We hope to have at least a dozen letters, telling our readers how their writers keep their books, if they have a system that has proven entirely satisfactory, or if it has not, asking for help in that direction and telling how you succeed in making a satisfactory percentage of collections.

All of our readers will be glad to know that new subscriptions for our journal are coming in rapidly and that they are many times accompanied by congratulatory letters. We appreciate these words of commendation, but we do not want our real friends to forget to tell us some of our faults and remind us of our mistakes, that we are sure to make. We mean this.

New subscribers should not forget that they have promised to send in reports of some of their interesting cases with photos to illustrate the reports. We want our old subscribers to make a note of this too. Just a few minutes of your time will suffice. You owe it to yourself to do this, because of the benefit derived in telling the story of your successes or a failure as the case may be and you owe it to your profession to give something of this kind, in return for what you get from others, who will take the trouble to help you, in that way.

Claims are now made that copper pipes for conducting water to be used for drinking and cooking purposes are much safer than are the lead pipes which are used so extensively. The taste which copper imparts to the water, of a harsh metalic type, when present in excess of an amount compatible with health, is a safeguard, while there is no apreciable taste in cases where lead is present in excess. It is pointed out by our chemists that hard water usually contains enough of the sulphates that form insoluble compounds with the lead to prevent it's absorption, but in places where "soft" water, lacking in these has been used that flowed through lead pipes, poisoning has occurred. Again the salts of copper in safe quantities are claimed to be beneficial, rather than otherwise and are often used to sterilize suspicious drinking water or that known to be contaminated with bacteria. This was done with apparently great sucess, a little more than a year ago, at the time of the typhoid fever epidemic in Milwaukee.

Coming almost immediately after the recent announecment of the wonderful discovery of a new "element," called Polonium, by Madame Curie, comes the statement that the annual award of one of the five "Nobel" prizes for greatest scientific discoveries made in the world during the past year, which is worth $40,000, to the recipient, has been given to her.

Once before this she shared equally wih Prof. A. H. Becquerel in the same prize. Great honor is due to this marvelous woman-scientist, who in spite of the untimely, tragic, accidental death of her husband, whose scientific labors she had always closely shared, has continued the work that they had been engaged in together, alone, and who has achieved such miraculous success It is claimed that Polonium possesses greater radio-activity than Radium itself.

FOR THE DOCTOR'S LIBRARY

INTERNATIONAL CLINICS: A Quarterly of Clinical Lectures and Especially Prepared Articles. By Leading Members of Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D. Illustrated with Plates. Pages 304. Vol. III, 21st Series, 1911. Cloth. Price $2.00. J. B. Lippincott Co, Philadelphia, Pa.

Several articles in this volume will especially appeal to the general practitioner on account of their practical nature. They are: "Some Uses for Some Old Drugs," by Dr. Edward W. Watson, of Philadelphia; "The Modern Treatment of Arterioschlerosis," by Harlan Brooks, of New York City; "Heart Therapeutics," by Dr. James J. Walsh, of New York. A very timely contribution is by Dr. E. H. Bradford, of Boston, on "The Surgical Treatment of the Disabilities Following Anterior Poliomyelitis." The article is well illustrated with plates. Dr. Thos. W. Huntington, of San Francisco writes on "The Operative Treatment of Long Bones." He advises fixation by means of steel staples and presents a strong argument for the procedure. Excellent plates show the feasibility of the treatment. "The Successful Practice of Medicine" is the title of a lecture delivered by Dr. Thos. F. Reilly to the 1911 Graduating Class of Fordham University, Medical School, New York. This volume contains a large variety of scientific and practical articles, the perusal of which will make a better doctor of any practician.

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FUN IN A DOCTOR'S LIFE, being the adventures of an American Don Quixote in helping to make the world better, and how the problem was solved for him by others, in England, France and Germany, by S. V. Clevenger, M. D., author of "Medical Jurisprudence of Insanity," "Evolution of Man and his Mind," "Spinal Concussion," "Therapeutics Materia Medica and Practice," "Artistic Anatomy," "Methods of Government Surveying," etc., etc. Atlantic Publishing Company, publishers, sold by the Physicians Drug News Co., Newark, N. J. Price $1.00.

The fun found in this book is not of the evanescent, silly kind, but is dignified, wholesome and instructive. The following topics are noted and give a fairly good idea of the contents of this interesting book of nearly 399 pages: Wireless from Mars, Among Mexicans, Old St. Louis, Fun with Illinois Grafters, Degraded Expert Business, Old Chicago, Welfare of the Multitude, Crazy folks, The Old Hospital, etc. We can not imagine any professional persons, who need the real help that such a book as this will give, more than members of the medical profession whose business in life is of such a serious nature, most of the time. We need humorous helps to assist us to forget, temporarily at least, our work and to get the benefit of the relaxation and recreation that we need, each topic is short enough to permit the book to be picked up for a few minutes at a time advantageously.

♣ ♣ ♣

THE SECRETS OF SPECIALISTS: by A. Dale Covey, M. D., Third Edition, Physicians Drug News Co., Newark, N. J. Publishers. Price Three Dollars.

In the preface to the third edition, the author says: "That many of the methods of treatment given in this publication, which were formerly used in an unprofessional way, can be adopted by the ethical physician with unexcelled therapeutic results and large financial returns." It is important for every practitioner of medicine and surgery to have at least as much knowledge of the methods of treatment referred to, as will make him familiar with them, that certain

comparisons can be made with other recognized treatments and will enable him to decide whether they should be tried, and also enable him to tell his clients the truth concerning them and thus protect them from paying exorbitant prices for some simple treatment, or warn them of the dangers attendant upon the use of some of them particularly under certain conditions of the health of the prospective user. Eighty-one topics are found in the index, among them such names as Alopecia, Epithelioma, Hair Dyes, Impotency, Obesity, Alcoholism Serility, Tobacco Habit, etc., etc. Ther are 377 pages, well bound in cloth and the book will certainly prove an interesting addition to any library and no doubt a therapeutical help, too.

LIBRARY NOTES.

We are in receipt of an interesting abstract of the papers, that were presented at the thirteenth annual meeting of the American Proctologic Society held at Los Angeles, Cal., June 26-27th, '11. This society will meet in 1912 at Atlantic City, N. J. Officers for the ensuing year are John L. Jelks, M. D., Memphis, Tenn. President, Alfred J. Zobel, M. D., San Francisco, Calif., Vice President and Lewis H. Adler M. D., Philadelphia, Pa., Secy.-Treas. Many papers of great interest were read and the abstracts furnished are very interesting and make one wish to read the entire paper. Our rule to publish only original papers that appear first in this journal, makes it impossible, as does the space at our disposal, to publish it in full. The entire abstract can be found in the "Medical Council" for September. It is valuable reading.

Since September 10th, 1911, Sunday issues of the Chicago Tribune have contained nearly a whole page of space devoted to the topic, "How to keep well." It is conducted and edited by an authoritative expert in answering this question, former Health Commissioner, of the city of Chicago, Dr. W. A. Evans. Some startling statistics are presented on the date mentioned and the purpose of the new department stated and an announcement made that questions will be answered that deal with the question of "preventive medicine." It is a very significant fact that the management of a great metropolitan daily believes that such a topic is of real interest to many of its readers and are willing to help on the movement that is constantly gaining momentum, toward the conservation of the health of the people of our nation and the world generally. Let every one "boost" a little. We heartily endorse the question and free discussion plan, as the best way to find out what the people want to know.

In "Life and Health," (the September number), is found an arraignment of the various types of "drugless healers," that sems to us to be very apt and able. We quote the following paragraphs: "The stock in trade of certain drugless healers who, whether they manipulate the vertebrae, the mind, or what not of the patient, and who never fail to manipulate the pocket book as a necessary part of the procedure, is the oft-repeated dictum, "that drugs never cure disease," "drugs are poisonous and poisons have no place in the human system." Again, "The opposition to the non-drug schools to drug medication is too often an opposition based on ignorance, rather than knowledge, an ignorance that is hopeless, for the reason that these schools are utterly opposed to the principal means of obtaining a true knowledge of physiological processes, viz.: laboratory research. On the other hand the schools that were once thoroughly committed to the drug system of treatment has most thoroughly learned that prevention is better than cure and is now working more and more into the line of personal and public hygiene."

MISCELLANEOUS NOTES

DYSMENORRHEA AS A PRE-DISPOSING CAUSE OF NEUROSIS.

Functional irregularities of the organs of generation, particularly if accompanied by pain, is possibly the greatest factor in the increasing number of women who consult the general practitioner presenting marked neurotic manifestations.

Where malformation is not present, successful treatment depends not only upon recognition of the cause, but the proper selection of a remedy for its removal.

To normalize pelvic circulation and to relieve pain without resorting to an opiate is the object to be accomplished. Since the time of Sims, the sheet anchor of the general practitioner in the treatment of menstrual and obstetrical conditions has been Hayden's Viburnum Compound, a dependable and reliable product.

In neurotic conditions dependent upon menstrual irregularities, Hayden's Viburnum Compound not only exerts a calmative but a corrective influence.

Samples of H. V. C. with formula and literature will be cheerfully forwarded upon request to the New York Pharmaceutical Company, Bedford Springs, Bedford, Mass.

RESULTS FROM DIGITALIS:

If there are any cases at all, in the doctor's practice, where certainty of action is desirable it is just those cases in which digitalis is usually indicated and given.

In ministering to his heart cases, above all others, he must be sure that the preparation he anticipates using is therapeutically reliable. He has a right to know, and it is his duty to make sure, that each and every dose administered to his patient will yield the characteristic effects of digitalis—and without delay.

But this assurance is not possible with the use of the fluid preparations of this drug. Even those purported to be standardized are notoriously uncertain. Were it possible to make them of exact strength by any laboratory process (which it is not) they would not long remain so. In common with all fluids they deteriorate rapidly.

The doctor who wants and expects results from digitalis should use Digipoten, a trituration of the glucosides of the authenticated leaves with sugar of milk. The Abbott Alkaloidal Co., of Chicago, put it out ,they have an interesting circular of inside digitalis facts that every doctor ought to read. Send for it.

The most frequent forms of diseases of the eye are those located in the mucous membrane of the eyelids, (conjunctiva). When left alone they are not only a source of annoyance and suffering but often endanger the sight. The frequency of these external affections of the eye has made their treatment one of the richest mines for quacks from the oldest times. All general practitioners of medicine are frequently called upon to treat these diseases, which they can do successfully with perfect safety, and not be under the necessity of sending their patients to the oculist. It will be readily recognized from the formula of Palpebrine that it is composed of ingredients of no untried remedies but of such as are entirely reliable in the treatment of all external eye diseases. No detrimental effects can come from its use ad libitum. Palpebrine is superior in its action to the remedies now in use. It contains all the constituents of Aqua Conradi, which is remommended by the renowned professor of the Vienna University, Ferdinand van Arlt.

The Dios Chemical Co. of St. Louis, Mo. will mail free sample with formula and literature on application.

or deter others from the commission of similar crimes, that the method of electrocution is at once the most humane, painless, rapid, bloodless, and esthetic method known.

The first electrocution occurred in the Auburn prison, Auburn, N. Y., May 18, 1892, and has since been employed at that prison, as well as at the Clinton prison at Dannemora, and at Sing Sing, in the same state. It was also later adopted by the state of Ohio, and was first applied at the Ohio penitentiary, Columbus, April 21, 1897.

The literature on the subject aside from the sensational newspapers is especially scanty, and until 1896 there was nothing reliable on this point, except a valuable paper by Dr. Carlos McDonald, of New York. I spent a whole year gathering facts and statistics on the subject of electrocution, which was published in the American X-ray Journal in June, 1897.

Since then there has been practically no new light thrown on the subject or any change in the methods employed. There has been improvement made in the technique and apparatus.

The writer was privileged to witness the first two electrocutions in Ohio, which were eminently successful, the net time to pronounce them both dead, being less than one minute, while the gross time consumed in making the attachments, changes, etc., for both, being but three minutes and forty-five seconds, in which time two men were executed in a painless and bloodless manner.

Formerly it took a much longer time to accomplish this end, as some have been known to struggle for life as long as twenty-seven minutes when being hanged, and it is a common thing for them to linger for half this length of time before they are pronounced as "dead." The object sought after in hanging is that the sudden drop will break the neck and cause death suddenly by paralysis, but this often fails, and the victims of defective apparatus have to suffer death by slow strangulation, and they are conscious for some time, and sometimes they are frightfully mutilated by the rope cutting into the flesh of the neck.

A case of this kind was detailed to me by my friend, Dr. Harry S. Jones, of Columbus, Ohio, who was for fourteen months the prison physician under Governor McKinley where the rope cut the throat of a man who was being hanged, so that the doctor was forced to support the body in order to prevent entire decapitation, for about nine minutes, while the man slowly bled to death, and in the mean time the doctor was drenched from head to foot with the blood of the dying man.

After going through with such an experienec is it any wonder that after witnessing the quick, painless and bloodless execution, that he was much impressed with the many benefits of the new method?

It was the opinion of every one who witnessed these two executions that the men never knew what had happened, and that they were killed quicker than they could think, and therefore, felt no pain whatever.

It is a well established fact that it requires an appreciable length of time to think, and it has been estimated by eminent scientists that the ordinary sensory impressions travel along the nerves at the rate of about 155 feet per second of time, and that painful impulses do not travel that fast, and when we know that a current of electrification will travel the circumference of the earth eleven and a half times in a minute, or at the rate of over 25,000,000 feet per second, it is almost inconceivable to reckon the time required for so strong a current to pass from a man's head to his foot, at most only five feet, or for it to pass through the skull and reach the sensorium and paralyze consciousness. At most, the slow going thought or pain impulse is left far behind in the race,

and the man is dead, or at least unconscious, long before he knows it.

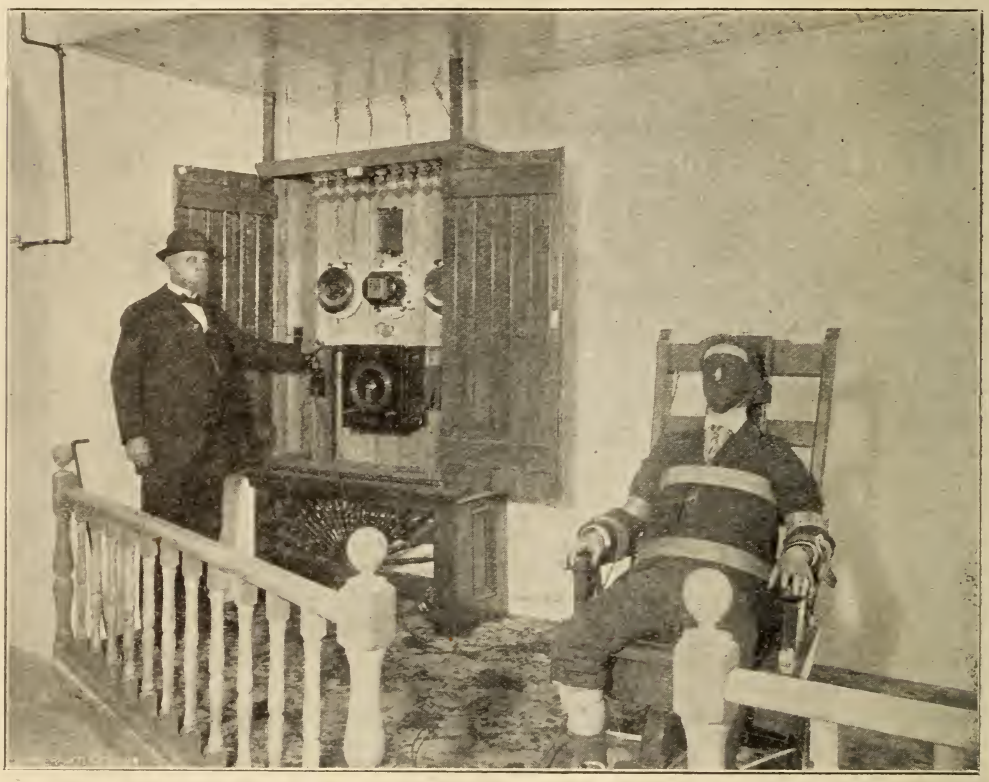
The current used is an alternated one with an initial potential of 2,000 volts, from a ring type, ten pole generator, the armature having a speed of 1,600 revolutions, thus giving 16,000 alternations per minute.

Evidence has been adduced from experience in past electrocutions, both legal and accidental, that a current strength of eight amperes forced through the body by a pressure of 1,700 volts, and representing a power (1,700 x 8) of 13,500 watts, or about 18 horse power, will produce instantaneous death.

The technique is very simple, and is shown in the accompanying view of the Ohio chair with a model in position.

The head-rest is adjusted, somewhat after the manner of a dentist's chair, so as to be raised or lowered, and it has a padded front which can be forced forward by means of a thumb screw after the face strap is adjusted, thus making the head immovable without being painful.

The subject is seated in the chair and held there firmly by means of thick straps of yellow leather, about three inches wide, one around each wrist, one around each arm just above the elbow, one around the body just below the arms, one around the body just above the hips, one around each ankle and one across the whole face and around the head. This last one is made of soft black calfskin, and consists of two pieces, each about four inches wide at the widest part, just meeting at the middle, but lapping over each other at the sides of the head, thus making a sort of diamond-shaped bandage with



View of the Ohio Chair with a Model in Position.

a concave surface which fits over the face, leaving a small opening for the tip of the nose to project, thus allowing the subject to breathe. This strap answers the double purpose of a strap with which to secure the head and also as a mask.

Each ankle fits into a semi-circular notch in each side of a cross-piece at the bottom of the chair, to which the ankle straps are attached. When a man is strapped in this chair he can move nothing but his hands and knees and them only slightly.

The contacts are made by means of two electrodes, one of which is applied to the outer side of the right leg at about the junction of the upper and middle third, and is held in place by means of a light strap around the calf. The other electrode is applied to the vertex by means of a long black strap which passes down over the temples and cheeks and under the chin.

We, as electro-therapeutists, all know that the greatest resistance to the passage of the current resides in the skin, which next to the hair and nails, is the poorest conductor in the body, and that after the skin is penetrated, the soft moist tissues of the body, on account of the large percentage of water which they contain, and which is an excellent conductor, offer but slight resistance to the passage of the current.

The part of the skin chosen also determines the amount of the current required as the skin varies in the amount of resistance offered in different parts of the body. For instance, very much more voltage, or electro-motive force, will be required to force the same amount of current strength, or amperes, through the body from one hand to the other, than will be required to force the same number of amperes through the body, from the abdomen to the sacrum. It is estimated that the resistance of the body from one hand to the other is about twice the amount of resistance encountered in the entire Atlantic cable.

A shock of 1,700 volts, passing through the body, will force through it a current strength of from seven to fourteen amperes, according to the conditions, where the electrodes are placed, the size of the electrodes, and individuals, and the state of the health of the person. For instance, a man who is large, anaemic, and sickly, with a dry skin, will require more voltage to kill him than one who is small, healthy and with a moist skin.

Of course there are exceptions to all rules, and there are to this. On Friday, June 17, 1904, I witnessed another electrocution in which there was apparent death produced twice, and a third application was required, the man having been removed from the chair between each application. He was a man of exceptionally strong constitution and fine physique, a moulder by trade, being exceptionally well muscled, and I afterward learned that he drank very little water. In this case there was no return of consciousness, nor respiration, but there was a persistent continuation of the heart beat. His body was evidently a poor conductor, and offered great resistance to the current, as it was necessary to administer to him some nine amperes, under a pressure of 1,900 volts.

We should bear in mind that it is not the voltage which kills, but the amperage.

I have the complete reports of 8 autopsies, and they all correspond to the statement made by Dr. MacDonald, when he says that, "The practical results of the microscopical examinations are that the passage of the electric current through the body is attended with no recognizable changes in its tissue organs, excepting the local thermic changes in the skin at the points of application of the electrodes and some minute petechial spots on several of the organs, and it is doubt-

ful if these are not some indirect or secondary consequences of the current."

This corresponds to our teaching concerning body corpuscular magnets, electro-tonus and magneto-tonus, and confirms the belief that electric death is due to the sudden and profound disturbance of the normal electric and magnetic equilibrium, which cannot, of course, be seen with the naked eye, or even with the microscope.

Of the hundreds of physicians who have witnessed the different electrocutions, there are few but that are of the opinion that consciousness to pain is entirely and almost instantly obliterated by the first application of the current, and there are but very few but that think that death results almost if not as soon as consciousness is lost.

It is the unanimous opinion of every one who has any knowledge of the workings of the method, either practically or theoretically, whether they are professional or non-profesional, that electrocution is the surest, quickest, most efficient and least painful method of inflicting the death penalty that has yet been devised.

As far as known to the writer, there have never been any attempts made at resuscitation after legal execution, for it is not desired that the subject live, but where slight non-lethal doses of electrification have been given, and in some cases of accidental shocks, attempts have been made at resuscitation usually by means of artificial respiration, and it may not be out of order to call attention here to an ingenious yet simple apparatus devised and used by Dr. P. J. Gibbons, of Syracuse, N. Y., for this purpose.

This consists of two bellows, so arranged as to act as a set of lungs, one to pump air and the other to suck it out, and anyone who has tried the usual methods of artificial respiration for several hours on some drowned or asphyxiated or narcotized person will appreciate the convenience of this apparatus of Dr. Gibbons in such cases.

Any of the usual methods to keep up the circulation of air in the lungs are indicated, such as rhythmic traction on the tongue, stimulation of the pneumogastric nerves, and diaphragm, and intercostal muscles by means of faradism, when a battery is at hand. But as most cases of accidental non-lethal shocks occur where these accessories are not available, probably the best treatment is the well-known La Borde method of artificial respiration, which must be kept up systematically and persistently for hours. This advice applies equally to cases shocked by live commercial wires and by the so-called strokes of lightning, which are merely powerful static discharges of high voltage and low amperage.

HYGIENIC EXHIBITION

A great hygienic exhibition has just closed at Dresden, Saxony, at which all of the important countries of Europe and some of the Asiatic ones are represented. The United States is not o1/8-cially represented, but it is hoped that some of the great benefits that will be realized by those participating will be brought to us by those from America, who may be present.

With so many triumphs in the way of disease prevention at Panama and in Cuba and what we have accomplished and are continually accomplishing at home in this direction, to our credit, we could have been very helpful in such an exposition, and it would apear ought to have been represented as a nation. An area of 100 acres is being used in demonstrating everything connected with private and public well being, from the standpoint of health preservation, government regulation against accidents, emdical care and sick benefits for the industrial classes and provision when incapacitated through old age.

SKULL OF A BRITON

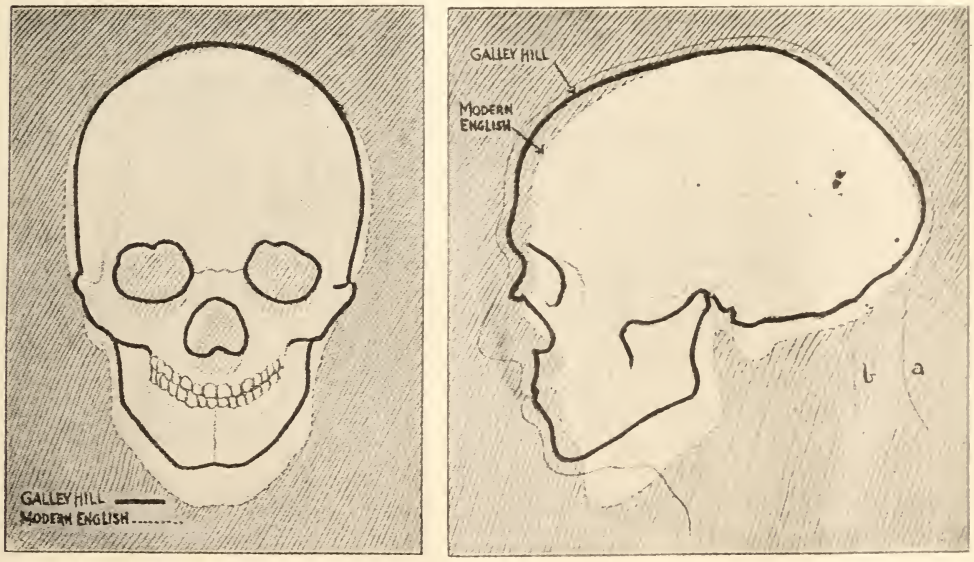
The entire skeleton of a man, was discovered in a gravel pit at Galley Hill not far form Gravesend, in the valley of the Thames River in 1888. Geologists agree that the stratum in which it was found, fixes the fact that the remains found a resting place there at least seventeen hundred centuries ago.

The gravel in which it was found was once the bed of the Thames River, without any possibility of a doubt and the manner in which the skeleton was found precludes any possibility of it having been placed there since the date suggested, in fact geologists generally think that the stratum is of a still earlier period.

Assuming this to be true, there is a remarkable lack of any considerable differences in size and outline, as clearly shown in the comparisons made by aid of the drawings, which were carefully made from actual measurements, between this very old skull and the ones of the present age.

The heavy dark lines are the outline of the Galley Hill man's skull and the dotted lines of a present day Englishman's.

The place where it was found showed clearly that it had once been the bed of the Thames and the rest of the skeleton, which was very soft and friable showed that while the head was nearly as large as that of a modern man and very near the same shape, the stature was much less, being not over feet feet and one inch. Few are seen at present with same retreating chin and shape of forehead, still the differences are not decidely marked and do not suggest the "Simian" type, in any degree at all. this seems to interfere with the historical idea that man made his appearance in Great Britain, by an invasion from somewhere about 5000 years ago and seems to make necessary a revision of some of our previously accepted theories of the age and origin of man, on this old planet.



Skull of a Briton Buried at Least 170,000 Years Ago

PHYSIOLOGY OF MARRIAGE

D. L. FIELD, M. D.
Jeffersonville, Ind.

That disease is transmissible from parent to offspring, I firmly believe; although according to some ultra-scientific theories, this is disputed. It is claimed now, that while a child inherits a constitution predisposing to disease; yet unless a germ find lodgment in such a one, disease of a hereditary nature will not develop. I contend that if a man abuses his body by any form of excess, whether gluttonously, alcoholic intemperance, or other sins against the laws of health, he is certain to reap the consequences; and as we transmit to our progeny our peculiarities of temperament, and physical likeness, and constitution; so we transmit the seeds of disease. Mental, moral, as well as physical disease, are only to be prevented by seeing to it that men are born to an inheritance of a healthy physical organization. Desirable qualities are ransmitted as well as bad ones. Horse and cattle breeders know this, and try to bring their stock up to the highest standard of beauty, and value. As the stock pedigree, so is the stock estimated in value; and that because stock breeders recognize the law of transmission. Man being only a higher order of animal, is subject to the same physiological law, as that of the lower animals. Man is susceptible to improvement by the same processes, as are the inferior animals. The Greeks knew this law; and gave special attention to the propagation of the highest types of physical perfection.

It is strange that men take the greatest care to mate their equine and bovine stock properly; and select their wives from families known to inherit the seeds of diseases. With his eyes open, he selects a wife, to rear his offspring, who according to the law of heredity, will transmit a deplorable heritage of bodily infirmity; or a healthy young woman will choose for her husband, one whose blood is tainted with tuberculosis, and perhaps something worse. Neither asks:

"Can troubled or polluted springs,
A hallowed stream afford?"

Very few measures are taken to bring about happy alliances; such as will result in offspring of excellence, both physical and moral. Our social life, and civilization ignore questions of this kind, and the race will deteriorate.

Man standing highest in the scale, is not exempt from the natural laws governing all other forms of life. He alone, modifies the law which determines, in its operation, the "survival of the fittest." Biological law teaches that all beings endowed with life, tend to repeat themselves in their descendants; and it must be understood that not only physiological, but psychological qualities are transmitted from parent to child; as well as pathological conditions; and the individual bears the traces and consequences of his parentage througout the whole of his compound nature.

"How new life reaps, what the old life sows;
How, where its march breaks off, its march begins;
Holding the gain, and answering for the loss;
And how, in each life, good begets good;
And evil—fresh evil."

Herodotus believed tn the heritage of mind and intellectual attributes; and the bible abounds in recognition of moral heritage.

The masses are ignorant of the almost universal influence it has over the physical moral, and mental conditions. There is no doubt that the mental and moral phenomena rest on a physical basis; that they are as much the result of organic conditions, and changes going on in the body as growth and de-

cay; so that the recognized boundaries of diseased action, are greatly extended. Insanity and crime are as much the result of physical degeneration as are tuberculosis, or any other transmissible disease. With the increase of population, under these conditions, go increase in crime, insanity, pauperism, consumption and syphilis. No one, who has observed, can doubt that alcoholic intemperance is one of the greatest causes of physical and moral degeneration; and drunkards propagate rickity, feeble-minded offspring, as the rule. They are prone to be dipsomaniacs.

How shall marriage be so regulated to avert the calamities of ,physical moral, and mental decrepitude which come down from parent to child? Shall all these evil tendencies be thrown into life's current, to drift on to future multipotent manifestations of degenerating effects? If so what a heritage of curses will be the portion of innocent posterity. They will fill the place of their ancestors, burdened with untold misery.

Science and observation have demonstrated beyond question that much invalidism is inherited. No one who has had secondary syphilis should ever become a parent. Inebriety cooperates with unwarranted sensuality, that originates and spreads the syphilitic taint, and kindles the passion which consumes all moral restraint.

Transmissible diseases of an hereditary character, like a stealthy thug, go through the land, and silently throttle thousands of helpless beings.

What avails the counsels, and warnings of physicians and the ravages before the eyes of the public, when it comes to a conflict with the passion of men?

Finally it is the duty of our law-makers to enact laws to prevent improper marriages, and propagation. It is an admitted wrong to disseminate disease; yet there seems to be no power to remedy the evils of transmissible germs.

I am proud to say that my own state has very effective laws, limiting the qualifications for marriage.

CHEST MASSAGE

OTTO JUETTNER, M. D.
Cincinnati, Ohio

To manipulate the muscles of the chest-wall means to increase their blood-supply, to develop them, to render them stronger and more active. This, in and of itself, means more vigorous respiration, especially if the mobility of the thorax proper has been increased. These effects should be aimed at in all cases of lung-consumption, especially during the early stages. The modus operandi is subject to variation owing to peculiarities of individual cases. In a general way the following suggestions will be found applicable to most cases.

The patient being placed in the dorsal decubitus, the operator begins the manipulation over the costal border, gently picking up between his fingers a fold of skin and subcutaneous tissue, lifting it from the bony structures beneath and gently kneading it between his fingers. Most patients will be found to be "hide bound," the soft tissues of the chest-wall being very tense and hard to raise. Eventually, i. e., after repeated sittings, the fold of skin will come up with comparative ease. This manipulation requires all possible patience and gentleness. Lack of delicacy would be worse than worthless. Gradually the manipulation is extended over the whole chest. This form of massage may be followed by gently stroking in a horizontal direction. Each sitting should last from fifteen to thirty minutes, to be repeated after tweny-four hours. Within a week or two the chest will be less tense and probably a

trifle fuller. At this juncture exercise of the thorax might be begun. The operator places his flat hand over the right or left side of the patient's chest, making firm and gradually increasing pressure.

The result will be a partial immobilization of the chest. If the patient is told to breathe deeply the effect on the chest will be more or less intense. The patient will expand the unengaged side of the chest more than he would without immobilization of the other side. He may vary the procedure by placing both hands on the lower part of the thorax over the last three ribs, thus forcing the patient to expand the upper portions of the chest vigorously. In this way the expansive power of the chest can be increased considerably, rendering inhalation of fresh air a therapeutic factor of prime value. In applying these mechanical methods to individual cases, much depends upon the judgment and the individualizing faculty of the physician. With proper care and judgment an immeasurable amount of good may be derived from manipulations of this kind.

SCIATICA

J. M. MARTIN, M. D.
Dallas, Texas

Sciatica is beyond question one of the most distressing and difficult diseases, to be found in the whole catalog. Never fatal, it frequently gets well after the simplest treatment or no treatments, yet on the other hand it frequently resists the effort offered by medical and mechanical methods and refuses to be benefited by any method or all methods.

Sciatica is a localized neuritis manifested by the sensation of pain throughout the distribution of the sciatic nerve. Tyson says that, "a few of such cases may be neuralgic, but that the vast majority are inflammatory and perineuritic, as it is the sheath of the nerve that is usually involved."

It goes without saying that when discovered and possible, the cause should always be removed. The patient and particularly the affected side should have complete rest, absolute rest. As to the subject of remedies, most everything medicinal and mechanical have been tried with some success and many failures.

In that class of sciaticas not caused by bone diseases or pressure, vibratory massage and static electrification will, if properly used, give excellent results in a large majority of cases.

When the inflammation is great and the soreness intense, the electric vibrator should not be used because it aggravates the pain and seems to do more harm than good. In the most aggravated types of sciatica electrification in the form of the wave, will be of great service in relieving the pain and improving the condition of the injured nerve.

A smooth block-tin electrode two inches wide by six or eight inches long should be closely bound over the region of the greatest tenderness, and the electrode connected to the positive side of the static machine, the patient being on the insulated platform. The negative side of the machine is grounded and the prime conductors are placed close together. The machine is started with a slow motion and the prime conductors are slowly separated, allowing sparks to pass between them, until the patient complains of a little pain. After a few minutes the spark gap may be gradually increased until the full capacity of the machine is reached. After about twenty minutes of this kind of treatment, the most of the pain will have disappeared and the patient will feel relieved. This treatment may be fol-

lowed by a number of sparks from the ball electrode, applied to the region affected.

The cause of frequent failures with this method of treatment is due to the fact that the majority of the static machines are not kept in a good state of repair, and the wave is not powerful enough to be of any real value in this class of work. In obstinate cases the treatment may be given twice a day, or sufficiently often to control the pain. In most cases the seance may be given daily and a cure effected in from one to three weeks.

The habits of the patient must be inquired into; his digestion regulated and bowels kept normal.

The following case history will be of considerable interest to those who have had some experience with this class of obstinate cases. This man had been a sufferer for more than twenty-five years from sciatica, and at the time he came under my observation was on crutches, and was then only able to get about a limited amount, which caused him great pain. He had tried all kinds of electric appliances advertised in the lay and medical magazines without a particle of relief. He had very little confidence in electric methods and came to me under protest, expecting no benefit whatever.

The pain was not localized but extended throughout the nerve, and was so great that even light pressure caused great suffering. I began his treatment with the static-wave as above described, using mild treatments, with gradually increased strength until the pain became less severe. The treatment had to be given throughout the course of the nerve. In a short time he was able to take the severest sparks with ease, and claimed that they felt good rather than caused him pain. In order to increase the strength of the application, his foot was placed in a small tub containing about six inches of water. The tub was connected to the positive side of the machine. After applying the wave in this manner, the prime conductors were pulled wide apart, and large sparks applied along the region of the sciatic nerve, using the ball electrode. This treatment brought excellent results and my patient made a splendid recovery. In a short time a cane took the place of the crutches and in a little while the cane was laid aside.

He was practically free from pain and able to do heavy work, for two or three years after this treatment. If he has had a recurrence of the trouble I have not heard of it.

Sciatica in a fleshy subject requires very energetic treatment to be able to affect the nerve at all. Small static machines or machines with low potential, will be the cause of failure in such cases.

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PEDIATRICS.

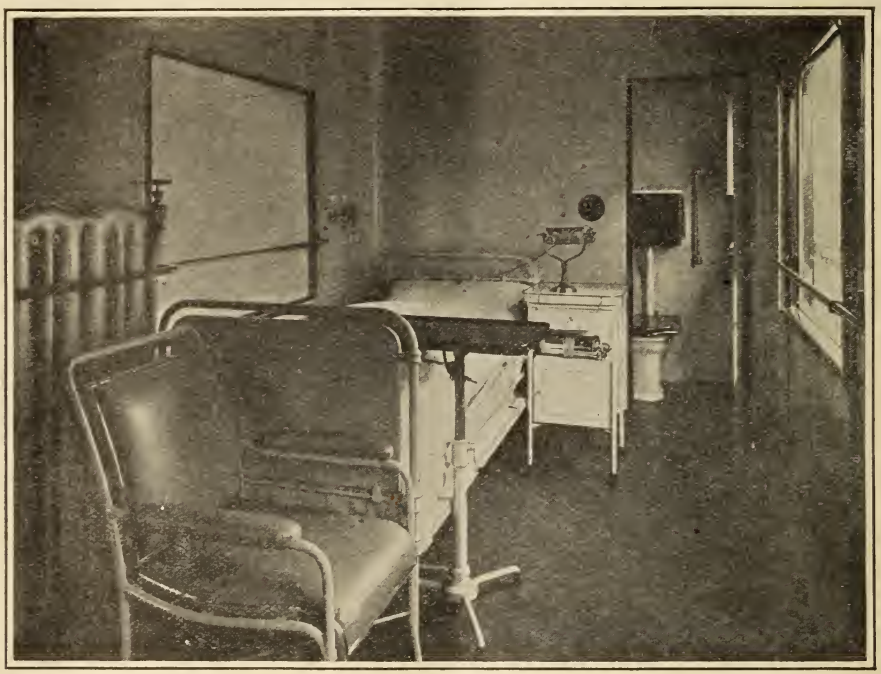
"That Pediatrics is fully established as a special department of medicine cannot be doubted. It's peculiarity as such lies in the fact that it is practiced by two different classes of men—the general practitioner and the strict specialist.

Pediatrics is an offshoot of the general practice of medicine and must always continue to be closely allied to it. Man, the highest animal of creation, starts in life the most imperfectly developed and the most helpless of all. The formative and developmental period therefore is in many regards the most important one of his life. Hence the proper management of infant man in health and the treatment of the many diseases peculiar to this period of growth and development, form a specialty of very great importance. The truth of this statement is not modified by the fact, that the majoriy of sick children are treated by the general physician."—Exchange.

SWISS HOSPITAL CARS

The accompanying picture shows the interior of a Swiss hospital car, used on their Federal railways and so built that they can be used on any standard line in Europe. Four are in use now and more will be built at once.

They have special emergency brakes operated from each compartment and are steam heated and electric lighted. Patients can be easily transported for long distances and can be made very comfortable, all of the time on their way.



Interior of Swiss Hospital Car Used on Federal Railways

The illustration is of the middle or sick room for the patient. All of the fittings are exactly as found in well-appointed hospitals and so constructed and arranged and finished that the room can be made and kept perfectly aseptic.

In addition to what can be readily seen in the picture, there is the usual electric call bell and a fan for ventilation and an electrical heating pan. This room is accessible from the outside through broad folding doors in the side which will readily admit a patient on a stretcher. Adjoining this sick room is one for the attending physician or nurse, containing a sleeping berth, a table, an instrument and medicine and surgical dressing cabinet, etc. Besides these two rooms there is one for patient's friends fitted up as a sleeping car compartment usually is and a kitchen fully equipped, with suffcient storage for ice, provided to meet all culinary and medical requirements. The baggage compartment can be heated and used as a sleeping room by domestic help. The kitchen is lined with sheet iron, enamel painted. In it is a tank which stores a large supply of water, so that the same kind can be used for long trips. Altogether all modern comforts for the unfortunate sick person that needs to travel or for those seriously injured who must be moved considerable distance are provided and similar cars should be at the disposal of the patrons and employes of our own railways.

DISEASES OF CHILDREN

J. V. STEVENS, M. D.
Janesville, Wis.

This paper will appear in "Hypodermic Medication" edited by Geo. L. Servoss, Fallon, Nevada, and Published by the Physician's Drug News, Newark, N. J.

HYPODERMIC MEDICATION.

Hypodermic medication has not been used in prescribing for children, as frequently as for adults, but there are many cases and conditions that very properly demand its employment. While the indications for its use and the manner of administering it are much the same in a general way, as in adult cases, special consideration of the subject is required, the same as it is necessary to view the child, in health or disease, as entirely different from the often accepted idea, that they are little men and women. They are not, either anatomically, physiologically or pathologically.

This is a simple statement of the facts, as known to all competent observers and its further demonstration is not to be expected, in this paper.

Consulting the text books on Pediatrics we find that such well-known authorities as, Keating's Cyclopedia of the diseases of Children, Smith, Goodwin, Vogel, Mundy and Ruhrah make no mention of the use of the hypodermic syringe and that Chapin & Pisek, and Christopher and Ridlon, mention its use in Hypodermoclysis alone and that only Holt, Starr and Fischer indicate that it is proper and perhaps desirable to use this manner of administering therapeutic agents to children. It is noticeable that the last ones mentioned are among our most recent books on Diseases of Children.

The hypodermic syringe has a definite place as a diagnostic aid in withdrawing some of the contents of cavities, such as from the Pleural or Intra-spinal space, or any other place where an accumulation of pus or serum is suspected, that can not be readily diagnosed otherwise, either as to its presence or its character.

It has been recommended and used by at least four of the authors quoted and has undoubted value, in hypodermoclysis, the introduction of a normal salt solution in this way, being preferable in many cases to enteroclysis or to intravenous administration, though each of these ways may be more suitable at times than the other.

In many diseases of childhood the stomach rejects everything taken into it, but but it will be less irritable if nothing is given in the way of food or medicine or even drinks of any kind including water, for a time. The great importance of hypodermic medication in such cases is easily apparent. The more prompt and almost immediate effect of the remedy used deserves our thoughtful consideration, too. We suggest, as among some of the diseased or accidental conditions in which a hypodermic syringe can be used to the best possible advantage, and may be the only means of saving the life of the child, temporarily, thus making restoration to health possible, in syncope, which is long continued, weak heart action, primary, or because of co-existent disease, such as Penumonia, Rheumatism, etc., Strychnia and other heart tonics can be given. A prompt effect must be secured to be of any avail in these cases. The inactive or entirely suspended action of the digestive apparatus, at such times is too often overlooked and still wonderment is expressed, because of the failure to get results from the remedies swallowed under similar conditions. The doses of medicine are usually more accurate, when given in this way and do not need to be repeated so frequently. Apomorphia can be used in cases requiring an emetic, as in known or suspected poisoning and spasm of the Larynx, Spasmodic Croup, and other affections of the throat or respiratory passages of a spasmodic character.

Some therapeutists are giving Morphia Sulphate in this way for symptomatic

convulsions, we prefer some other remedies such as Passiflora or Veratrum viride, which can also be given hypodermically. Morphine and Atropine can be given in Cholera Infantum and, very important to remember, Atropine can be given in Opium poisoning, a condition in which there is no good reason to believe that there will be much, if any, absorption from the channels of the digestive tract. The marked susceptibility of the infant to the effect of Opium and its alkaloids should always be remembered. The use of the Wasserman test for Syphilis will be needed in many cases and will be very important sometimes. Infants and children are said to give a positive reaction in a very large proportion of cases: (298 out of 300 suspected cases), examined. (Dr. Reuben, June Number, Archives of Pediatrics.)

Cyanide of mercury is used with great prospects of success in Tuberculosis and Salvarsan can be given hypodermically as remedies, as in adults. The administration of the antitoxins is a most improtant phase of this mode of giving our remedies to children. The Diphtheria Tetanus, Anterior Poliomyelitis Antitoxins and Serums are indispensable features of our present day armamentarium. They are given in this way and to children, most frequently, because they are specially liable to be assailed by these diseases. The proved effects of this kind of treatment, both in immunizing and curative doses places them beyond discussion, quite largely.

The considerable enlargement of the list of remedies used hypodermically, in the constantly increasing number of bacterial vaccines and also of animal serum therapy, makes the study of the method more interesting and vastly more important. The use of bacterial vaccines in a series of cases of middle ear infection in children is reported, where very decidedly satisfactory results were obtained, by the use of the various Staphylococcic varieties singly and in combination.

The Rabies, immunizing Vaccine to prevent that disease and the Friedlander vaccine in Chronic Nasal Catarrh has given much promise of being a valuable agent in this very intractable disease. The use of Anti-Dysenteric, Anti-Pneumococic, Anti-Streptococcic normal and other serums and the following Bacterins or killed bacteria vaccines: Acne, Cholera, Coli, Friedlander, Neisser, Neoformans, Pneumo, Pneumo-combined, Pyocyano, Scarlatina, Staphylo and Strepto (various varieties of each), Typho-Bacterin, for the immunization and treatment of Typhoid fever and the many varieties of Tuberculins, some of which are particularly applicable to the treatment of the diseases of children and whose use is largely indicated by their name and the following remedies specially prepared for this kind of medication: Apomorphine, Adrenalin, Atropine, Digitalin, Ergotin, Glonoin, Hyoscine, Heroin, Morphine, Pilocarpine, Sodium Cacodylate, Physostigmine, Sparteine, Strychnine, Urotropin and many others in combinations give us some idea of the wide range of hypodermic therapy.

It is not the purpose of this paper to suggest all the therapeutic uses or exact doses of the rmedies named, because each one who succeeds in the practice of our profession makes his own selection of remedies that he can work with and the dosage that he can use to the best advantage in his practice and no one can make it for him, satisfactorily.

However, no mathematical proportion, based on weight of child as compared to weight of adults, can be safely or reasonably used, as recommended by some writers. Using very small doses always and repeating often enough to secure desired effect is far preferable and much safer.

In symptomatic convulsions, or in fact in convulsive seizures of any kind, appropriate remedies can be given immediately, in this way without waiting for a subsidence of the attack. Veratrum should not be overlooked in this condition

but employed promptly, as it is just as valuable here, as it has been proven to be in adult cases. Some therapeutists laud Lobelia in this condition and use it freely in 15 minim. to one drachm doses hypodermically, repeated if necessary and used in all conditions of this kind of whatever nature, including Epilepsy, Tetanus, Spinal Meningitis, Toxemias, Diphtheria and Croup. The literature of this last named remedy is very interesting and some of the observers of its use are very enthusiastic, not to say extravagant, in their claims. One ought to have any remedy in mind and be prepared to use it, if needed, until some of the claims that have been made for it seem to be proved or disproved by experience in its use.

Some rather unique uses of remedies hypodermically, are Parafine in Hernias, and Gelatine in Kidney disease, the use of Citrate of Iron, (the Italian made variety is the best for this purpose), in the secondary anaemia of Tuberculosis and the introduction of a sufficient quantity of Nitrogen into the Thoracic cavity on the side of the affected lung to produce a condition of Pneumothorax to compress the lung, in bad cases of Haemoptysis, in Pulmonary Tuberculosis or from any cause. Oxygen has been used hypodermically in rheumatism and it is claimed that much benefit has been derived from it. It has also been used intravenously, to combat any kind of asphyxia or cases of slow suffocation and in Mon-oxide poisoning. From ¼ to one gallon of pure Oxygen gas can be injected sub-cutaneously in the same way as is used in injecting liquid remedies. Dr. J. P. Jackson of South Norfolk, Va., has used this remedy in a number of cases sub-cutaneously and will state his experience to any one specially interested, who will ask for it.

The use of the Bismuth paste for fistulae and sinuses as recommended by Dr. Beck of Chicago has passed the stage of uncertainty and has been fully proven to be of great value in all of those cases. The production of local anaesthesia by the use of the one per cent solution of Quinine and Urea Hypochloride is another remedy of great value added to the other agents, previously used for this purpose, hypodermically. Among the actual successful uses of this remedy, is in the extraction of a needle from the plantar surface of the foot of a child. Our purpose has been to stimulate investigation of this subject rather than to write an exhaustive article concerning it. Parental objection will probably be encountered in some cases, but consent will be readily gained in a large percentage of them when the comparative freedom from danger, in the use of the syringe, and the certainty of securing the effect of the remedy, promptly has been carefully explained, as well as the difficulties and uncertainties of giving the remedy in the usual manner.

In fact the public will soon become acquainted with the vaue of the plan and will demand its more frequent use, when they fully understand the necessity for using it.

We prefer to use an all glass syringe or a glass syringe with asbestos packing, because they can be quickly and thoroughly sterilized and one can be used exclusively for each patient, on account of their cheapness, they can be furnished to patients at fifty cents each and are not such a great loss if broken acidentally. They should be purposely broken at the conclusion of many kinds of cases and after the use of some kinds of remedies and vaccines has been suspended.

They permit a careful inspection of the contents, after the syringe is loaded and also a convenient loading with the remedy. One can be and must be sure, that all air is excluded, before the needle is inserted beneath the skin. This is accomplished by holding the syringe perpendicularly and expelling all of the air that may be in the syringe and a little of the contents, to be certain. After inserting the needle through and underneath the skin, the piston should

be slightly withdrawn to see if any blood vessel has been pierced, which can be told by the presence of some blood in the syringe. If there is the slightest tinge, the syringe must be entirely withdrawn and re-inserted.

The field for the insertion must be thoroughly cleansed and made as aseptic as possible and only sterile water used in dissolving the tablet used or diluting the liquid remedy used. Never forgetting to have your syringe perfectly sterile in all of its parts all of the time and carefully protected from infection and ready for instant use. Many prefer to make up solutions and have them ready for use and it has been recommended that the container have a rubber nipple cover, without any perforation in it, which the needle of the syringe can be plunged through and and the liquid withdrawn when desired, others put the tablet or medicine in the barrel of the syringe and add sufficient sterile water.

Unusual care in this, where time will permit, is essential and prevents after induration or abscesses at the point where the puncture is made. Injections made near and in front of the great trochanter cause litle, if any, pain. Try this on adults and prove it. Other points, like under the scapulae, in the buttocks and the calves of the legs are best because less dangerous and they are out of the usual range of vision of the child and it can be so held that you are not discovered producing the pain and much of the fright that the child would otherwise experience is avoided. It is always extremely desirable to escape incurring, either the fear or the enmity of your patient, as far as possible.

In no other part of our professional work is tact and kindness more important, than in caring for children, nor does the use of them prove more valuable to us in a business way. Every physician should seek to have the love of the little ones in his community and families, which—the display of a real liking for them and the use of particular care in never failing to recognize them away from their homes, will surely bring to him if he combines with this, little attentions to them and a display of a genuine interest in their activities and a care in prescribing or dispensing medicines, not given hypodermically, that are reasonably pleasant to the taste.

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The State Board of Health of the State of Wisconsin has furnished 4297 packages of Diphtheria Antitoxin free to the citizens of the state, during the past two years, on the certificate of the Health Officer that it would be a hardship for the patient to be provided with it by purchasing it themselves. We think that a still broader policy should be pursued and the Antitoxin furnished free in al cases, except where the people insist on paying for it. Very many honest hard-working men whose families are sick and who can ill afford the increased expense of such illness, with the trouble that quarantining their home causes, are unwilling to confess to being financially unable to pay for the Antitoxin. The great advantages accruing to the state in preventing the spread of such a dread contagion and in restoring its citizens to health, aside from the humanitarian view of the question, are great enough and Antitoxins can be bought, or produced cheaply enough, by the state, to warrant a very liberal policy in this direction and in the distribution of all needed antitoxins of any kind. We hope to see such a policy inaugurated in this state.

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In twenty-one months ending Oct. 1st, 1911, 46 childen were killed and 140 injured, by Automobiles; 29 killed and 17 hurt by Trolley Cars; 104 killed and 23 hurt by horse-drawn vehicles. A total of 180 killed and 192 injured, including 1 killed and 12 injured by wagons, in other ways, on the streets of New York City.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,

TURBINAL FUNCTION.

We have referred before in these columns to the necessity of exercising good judgment in nasal surgery. Dr. Adams has an excellent article on this subject in the Journal of Laryngology which Dr. Harris of New York abstracts in the Annals of Otology, Rhinology and Laryngology. The conclusions drawn are:

(1.) The whole mucous membrane of the respiratory tract from the nostrils to the bronchioles is hygrothermic and the chief agent to this end.

(2.) The whole nasal mucous membrane is specially concerned in this function.

(3.) The sinuses are accessory not only anatomically but also physiologically, more especially during the forced respiration of exertion.

4.) The turbinals, while important accessories to the hygrothermic function, are probably quite as much directional and regulatory in their action, i. e., they help to regulate the amount and direction of the air current going to and drawn from the sinuses, and respond to the amount required for the lungs.

His investigations agree with those of Pahlsen in regard to the course which the inspired air pursues in passing through the nose, namely the fore end of the lower turbinal and then between the middle turbinal and the septum and along the roof and down in front of the sphenoid. This applies to quiet breathing. For forced inspiration the air takes the route of the middle meatus also to the outisde of the middle turbinal. Differing from Pahlsen, however, he finds that the expired air goes above and below the inferior turbinal. The capacity of the sinuses is twice that of the nasal cavities proper, so that they are capable of storing a fair volume of warm air. When we consider the capacity of the sinuses, their character, their position, their relation to the air-paths, and the shrinking of the turbinals on exercise, it is difficult to avoid the conclusion that the sinuses are chambers for storing the warm, moist air, to be mingled instantly with the inspiratory air, especially on exercise. If the present contention be correct, the ablation of the sinuses cannot be regarded as a triumph of surgery. We should expect a pharyngitus to arise, and for the same reason after the abla- of the inferior turbinal.

Also, the effect of exercise on the turbinals points to one important elemnt in the treatment of wha is called "vasomotor rhinitis."

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DEATH FROM FRIGHT.

This expression is usually understood metaphorically, but The British Medical Journal, Oct. 14th, 1911, mentions an apparent instance of a death due to shock from fright. The person was a healthy woman of nineteen, with a hysterical mother, who was engaged in washing clothes with a companion, on the afternoon of July 30th, in a stream near a mill where, many years previously, two people had been drowned. The spot was popularly believed to be haunted, and she heard what seemed to be a mysterious noise and she became terribly frightened and could scare manage to get home, a short distance. She became very sick with a high fever, coma and convulsions and died on Aug. 22nd.

THIRD COMPETITIVE PICTURE

This "cut" represents the interior view of the office of Dr. A. C. Flack at Fredonia, Kansas, which he built about a year ago. The entire building is 17 x 60 feet. It is built of brick, with no openings in the wall on the East side. The front is of plate glass, principally, all except that, being of prism glass to the height of the ceiling which is eleven feet. There is a front recess entrance. Fronting north, with one window on the west side near the south end of the building. This gives much wall space for book cases, etc. The front, or reception room is 24 x 17. The door leading into the private office is directly in line with the front door, so that while seated at his desk he can see the front door, when the other door is open. The private office is 20 x 17 and is furnished with a roll-top desk, a safe, chiffonier, cabinet for skeleton, instrument case, scales, washstand, compressed air apparatus, electric wall cabinet, stove, operating table, and a long table, chairs, etc. Directly opposite the other doors is the door leading into the rear room 16 x 17, which contains the prescription case, shelves, toilet, sink, hot water tank, sterilizer, table and chairs. The floors are hardwood. The walls are finished in olive green color and the ceiling in light yellow. (The doctor's office must be a very complete and convenient one and fully justify his pride in it. Editor.)

Interior View of the Office of Dr. Flack, Fredonia, Kansas

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 14 DECEMBER, 1911 No. 12

DIPHTHERIA ANTITOXIN.

The considerable number of failures where doses of Diphtheria Antitoxin were given for the purposes of immunization, even where several doses were given at short intervals, amounting to as high as six or seven per cent of a series of cases where results were carefully watched and the treatment in competent hands, has led to the use of antitoxin applied on cotton tampons to the throat and mucous membrane of the nose, with better results, as far as has been noted. This method appears to not only give a greater degree of immunization, but the prophylactic effect is in force for a longer time.

Investigators now claim that the cause of measles is present in the blood, in the very earliest stages of the disease and that Koessler has demonstrated that an antigen to Scarlet Fever has been found in the lymph-nodes, which give rise to the hope that prophylactic antitoxins may yet be found for these two diseases, too.

Conclusions arrived at during an epidemic of Diphtheria at Rockford, Ill. Hospital in January, 1911, are, "The ordinary immunizing dose of diphtheria antitoxin does not always protect an exposed individual against the disease." "Treatment of the nose is as important as to treat the throat." "A spray of a broth culture of Stapylococcus Pyogenes Aureus removed the diphtheria bacilli from the throats of exposed nurses, who did not have the disease, but were found to be constant "Carriers" of contagion, in spite of other remedies used freely in the throat to kill the specific bacilli.

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VENTILATION.

We are not intending to give a dissertation on this vexed and many-sided question, but only call attention to some conclusions arrived at by those who have been associated with the work of open-air schools. It has been discovered that there is in increased number of red-blood corpuscles during the school terms, as compared with the same individuals during vacation. Since the establishment of the open-air schools there has been a noticeable decrease in the number of children with diseased throats and adenoids. It is conceded that there is a difference, in health or disease, between the air of the most carefully ventilated rooms, as provided by the best plans of expert heating and ventilating engineers and outdoor air. Various explanations have been offered for this difference, but none that have been universally accepted as correct. It has been suggested that it was due to the dust of the rooms and from the furnishings and the CO_2 of expired air, etc. Also that there is a special poison from the breath. This latter sugges-

tion scientists deny. Several eminent physicians have secured better results in their Pneumonia cases, by taking them out of doors or very near an open window. There are some observers who think that we ought to do away with all systems of ventilation and depend upon open windows, alogether. What we all want to know is how to make indoor living as healthful as out-door living, especially now, that it has been so clearly proven that delicate persons and those who have Tuberculosis can and do get well while living out of doors. Modern civilization is constantly condemning many more people to an indoor life in cities where the streets are paved with such material, that evaporation is largely prevented which is a necessary condition for human living. An answer to the questions suggested will be welcomed by every one. Let us have your's.

Our suggestion as to what the difference, at least in part, is, that the very important element of the influence of the direct rays of the sun, have not had proper consideration or their importance reckoned with, sufficiently.

We believe that their absence in all systems of indoor ventilation explains, in a great degree the differences noted by observers. That many of the most dangerous and virulent bacteria known are destroyed as effectively and quickly by direct rays of sunlight, as by any other known means, should be remembered at all times and employed as often as possible, for its beneficent and germicidal effects. The indirect rays are not to be despised, though they are not so helpful when admitted through any transparent media.

POISONOUS WATER PIPES.

Capable scientists are sounding a warning for people to be careful regarding the use of lead pipes to conduct water for culinary and drinking purposes. In a comparison between them and copper pipes, recently made in Paris, by the head of the Council of Public Hygiene of that city the latter were preferred. While the sulphates in most waters used for drinking, render the risk of lead poisoning much less, in their absence or their presence in diminished proportion, the danger is an imminent one. The salts of lead are more dangerous, because they do not betray their presence by their taste. The salts of copper give warning of their presence by a disagreeable taste and the human system rapidly acquires a toleration of them in considerable quantities and they are quite destructive to bacterial life, being extensively used for the sterilization of city water. American chemists and doctors, to whom this question has been referred have given the same opinion.

EFFECTS OF LIGHTNING.

We have a report by E. Whipple of a catastrophe in which 22 members of a troop were more or less injured by lightning which struck the stable in which they were engaged. All rendered unconscious but most of them recovered consciousness in fifteen minutes. None of them saw the lightning or heard the thunder. Fifteen were able to resume work after a few minutes, but seven were seriously injured. One man exhibited convulsions and another delirium persisting for two days. Nearly all complained of dull headache and sounds in the ears—all evidently symptoms of concussion and hyperemia of the brain. The spinal cord was likewise affected in one case, as disturbances in urination were observed. The effect of the lightning on the peripheral nervous system was manifest in a paretic condition of one or more of the limbs, usally the legs. In some cases there was cutaneous anaesthesia or hyperaesthesia. The peripheral symptoms had

all subsided by the end of a few days. One of the men presented transient symptoms in the lungs indicating hyperemia with hemorrhages, but these symptoms soon disappeared. He gives illustrations of some of the ramifying burns on the skin—the "lightning pictures," and remarks that the anatomic findings in the men and horses killed were strikingly similar, testifying to hyperemia and hemorrhage in the brain substance and also in the lungs, liver and kidney. The right heart was empty and the spleen did not seem to be affected.

It is a fact hat the lower animals are more easily and frequently killed by lightning than is man.

Electricity is a good servant, but a bad master.

Learn how to handle it.

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HOUSE FLY PEST.

In a crusade against the house-fly pest in Washington, D. C., where children under sixteen were given substantial prizes for bringing in the greatest number, millions were secured and counted by measures.

The destruction of flies, which may have some merit, does not impress us as the best way to get rid of them, or rather to "prevent" them from spreading disease as they are known to do. As mentioned in a paper in our Oct. issue th best way is to prevent their appearance. This is comparatively easy and would be accomplished in a great measure, promptly, by concerted action. This dangerous pest is unknown, except where filth accumulates and furnishes a home for their larvae. In frontier portions of our country they are not seen till civilization makes its appearance. One good word can be said for the fly, however, and that is that it serves as a warning to us of the neglect that we have shown in the disposal of offal and filth about our homes. That is is a faithful messenger of evil all can vouch for and that it torments us till we can not help but hear the message that it brings to us, to clean up and keep clean and be sanitary.

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ENTANGLED IN A LIVE WIRE.

If a person is tangled in a live electric wire and you want to extricate him therefrom, do not take hold of the victim's hands, as is often done in a case of this kind. You will be shocked if you do. Be sure to grasp the clothes alone, and then you are safe, and the current cannot reach you. Do not let anything come in contact with your bare hands, but his coat and trousers. Of course if you have thick gloves on you can handle with impunity the individual in distress.

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Dr. de Keating Hart of Paris, France, will lecture on the Fulguration Treatment of Cancer on Monday evening, December fourth, 1911, at eight oclock P. M. in the out-patient hall of the New York skin and cancer hospital, Second Ave., cor. 19th St. The lecture will be illustrated.

The members of the medical profession are cordially invited to attend and also to attend practical demonstrations of the new fulguration apparatus the following mornings.

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One of the best known medical writers in the world, Dr. Chas. E. de M. Sajous of Philadelphia, has lately accepted the position of Supervising editor of the New York Medical Journal. We herewith extend to the doctor and to the Journal our hearty congratulations and best wishes for their continued success.

FOR THE DOCTOR'S LIBRARY

THE PHYSICIAN'S VISITING LIST FOR 1912, Published by P. Blakiston's Son & Co., booksellers and importers at 1012 Walnut St., Philadelphia, Pa.

It is a very complete book and has a splendid binding, giving to it that distinguished appearance, that will make the owner of one proud to produce it from his pocket, for the purpose of telling a client how much his bill is. It is published in a series of sizes and for prices that will meet the wants of each one of the profession. It will save its cost to the busy doctor who will use it many times each year.

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HAND BOOK OF THERAPY, edited my O. T. Osborne, A. M., M. D., Professor Materia Medica, Therapeutics and Clinical Medicine in Yale Medical school, Ex-Chairman of the Section on Pharmacology and Therapeutics of the American Medical Association, Ex-President of the American Therapeutic Society, Author of "Introduction to Materia Medica and Pharmacology." With a chapter on prescription writing by George N. Hall, A. M., M. D., Assistant Professor of Medicine, Rush Medical College, Attending Neurologist Cook County Hospital, Chicago. Second edition. Republished by the American Medical Association, 535 Dearborn Ave., Chicago.

This is a book that is practically indispensable to the busy practitioner and will give him great satisfaction and save him much time, because the great amount of information that it contains is so carefully prepared and indexed, as to be quickly available. It is very skillfully condensed and is in a handy compact volume of 450 pages 4½ x 7½ inches in size. The undergraduate will find this book of use to him at all times and its convenient size makes it possible for him to carry it in the pocket for ready reference. There are many valuable tables in it too. It is attractively bound and we would advise every one to get a copy, before you forget to do so.

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The International Clinics, fourth volume of the twenty--first annual series, the one for the year 1911 is just received.

It is a Quarterly of illustrated lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, Penn., with the collaboration of William Osler, M. D., Oxford, John H. Musser, M. D., Philadelphia, A. McPherdran, M. D., Toronto, Frank Billings, M. D., Chicago, Chas. H. Mayo, M. D., Rochester, Minn., Thomas H. Rotch, M. D., Boston, John G. Clark, M. D., Philadelphia, James J. Walsh, M. D. New York, J. W. Ballentyne, M. D., Edinburgh, John Harold, M. D., London, and Richard Kretz, M. D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Price $2.00. Published by J. B. Lippincott Company, Philadelphia and London. It will be recognized that with such an array of talent a book of real practical value to every one interested in the study and practice of medicine has been and is constantly being prepared and published. One cannot well afford to try to do without it.

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